

**INVITATION LETTER**

**Package Code: TEQIP-III/BH/akub/35**

**Current Date: 03-Jun-2019**

**Package Name: Visual/Virtual Studio**

**Method: Shopping Goods**

TO,

**Sub: INVITATION LETTER FOR SETUP OF VISUAL/VIRTUAL STUDIO**

Dear Sir,

1. Sealed quotations are invited from Original Manufacturers or their authorized Dealers/Agencies for supply, installation & commissioning of **VISUAL/VIRTUAL STUDIO** at AKU, Patna with item wise detailed specifications given at Annexure I,

<b>Sr. No</b>	<b>ITEM DETAILS</b>	<b>Quantity</b>	<b>Place of Delivery</b>	<b>Installation Requirement (if any)</b>
1	Establishment Visual/Virtual Studio	01	ARYABHATTA KNOWLEDGE UNIVERSITY GYAN PARISHAR PATNA	YES

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

**3. Quotation**

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. Quotation shall remain valid for a period not less than **45** days after the last date of

- quotation submission.
6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
    - 6.1 are properly signed; and
    - 6.2 Confirm to the terms and conditions, and specifications.
  7. The Quotations would be evaluated for all items together.
  8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
    - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
    - 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.
  9. Payment shall be made in Indian Rupees as follows:

**Satisfactory Acceptance - 100% of total cost**
  10. Liquidated Damages will be applied as per the below:

Liquidated Damages Per Day Min % : 0.01  
Liquidated Damages Max % : 10
  11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others is **NA**.
  12. You are requested to provide your offer latest by **12:30** hours on **24-Jun-2019**.
  13. Detailed specifications of the items are at Annexure I.
  14. Training Clause (if any) **INSTALLATION AND DEMONSTRATION AFTER DELIVERY AT A PLACE OF DELIVERY.**
  15. Testing/Installation Clause (if any) **INSTALLATION AND DEMONSTRATION AFTER DELIVERY AT A PLACE OF DELIVERY.**
  16. Performance Security shall be applicable: **5% of the bid amount in a form of bank guarantee to be deposited by the successful bidder which will remain with purchaser for the entire warranty period**
  17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
  18. Sealed quotation to be submitted/ delivered at the address mentioned below, **Aryabhatta Knowledge University, Gyan Parishar, Mithapur, Patna 800001**

(Authorized Signatory)  
Name & Designation

## Terms & Conditions

1. The Aryabhatta Knowledge University (TEQIP), Patna invites the proposal from Original Manufacturers or their authorized partners. **For supply, installation & commissioning of VISUAL/VIRTUAL CENTRE at AKU, Patna.** Original OEM`s authorization certificate to the effect should be submitted in envelop of technical bid. Bidder should quote for **equipment** as per **Annexure-I**.
2. Bidders shall bid for Turnkey Supply, Installation, Testing, Commissioning & Training for the required Multicam Studio for Lecture Capture.
3. All quotations shall be provided with Authorization Letter from OEM/Manufacturing Company, in favour of the bidder to promote, negotiate, sell and provide support for the offered product. Authorization letters for following major equipment shall be submitted;
  - a. FULL HD Broadcast Quality PTZ Camera System
  - b. Full HD Video Switcher
  - c. 65" Full HD Interactive Display
  - d. Full HD Video Recorder
  - e. Streaming Server/Recorder
4. The bidder must have completed similar works in last three years towards supplies and installation of Multicam Studio Setups in Central Government/ State Government/ PSU/ Universities/ Reputed Higher Educational Institutions/Private Broadcasters/Postproduction Houses
5. OEM of the offered equipment should be internationally reputed Branded Company
6. The bidder should be a single Company. No consortium is allowed.
7. Quotations without Authorization Letter from OEM/Manufacturing Company shall be summarily rejected
8. Bidder must have a repair lab in India
9. Quotations received after due date & time shall be summarily rejected.
10. **Manner of submission of the quotations:** Sealed Quotations (Technical & Financial in separate sealed covers) should be sent by courier/ Registered/Speed post at the address given below so as to reach by the due date and time. Incomplete quotations are liable for rejection. No responsibility will be taken for postal delay or non-delivery/ non-receipt of Bid documents.  
Address of submission of quotation-  
  
**To  
The Registrar  
Aryabhatta Knowledge University Gyan Parisar, Mithapur  
Patna – 800001**
11. Quotations should be forwarded by bidders under their memo / letter pad.
12. Bidders are advised to be present at the opening of **Technical** and **Financial** bids.
13. Bidders are advised to study all technical and commercial aspects, instructions, terms specifications carefully in the Quotation document. Failure to furnish all information

required in the Quotation Document or submission of a bid not substantially responsive to the Quotation document in every respect will be at the bidder's risk and may result in the rejection of the bid.

14. This Quotation document is not transferable.
15. All documents should be signed by proprietor/director or an authorized signatory of firm. Certificate of authorization should also be attached. Interlineations, corrections, erasures and/or over-writings shall be valid only if initialled by the person or persons signing the bid.
16. Bidders should attach copy of Firm registration, copy of certificate of GST registration, PAN Card in the name of firm or proprietor, Financial Statements, Brochure of make & model, certificates of quoted make & model duly stamped & signed, duly filled Compliance Document as per Annexure-II and duly filled Bidder profile as per **Annexure -I** in **Technical Bid envelope**.
17. Documents in support of supply, installation and commissioning of single work of at least 50 Lakhs of IT Equipment system within last three years i.e., from 2015-16 to 2017-18 along with respective performance certificates in State Government offices / Central Government offices / Government Universities/ PSU. Amount of work should be clearly mentioned in Performance Certificate.
18. Notwithstanding anything to the contrary in this document, the Aryabhata Knowledge University is not bound to accept the lowest quotation and reserves the right to accept or reject any quotation, to reject quotations for some or all items and to cancel the bidding process at any time prior to the award of contract, without assigning any reason whatsoever.
19. Bidders have to submit self-attested declaration letter for not being blacklisted by any government organization.
20. The work has to be completed within **4 weeks** of award of works, subject to force measure. It will be reckoned from the date of the signing of agreement. If the work is not completed within the completion period liquidated damages @0.01% of agreement value per week of delay will be levied (subject to maximum of 10%). If the liquidated damages reach the level of 10% the contract is liable to be rescinded. In future, the bidder will not be eligible to participate in bids.
21. An affidavit stating "I/ We the undersigned do hereby certify that all the statements made in the required attachments are true and correct, That all specifications mentioned in the proposal matched with quoted specifications and if found fake/ forged even in the future, the undersigned will be liable to be inflicted upon the FIR and lawful punishment as well as black listing" will be annexed along with the Technical bid.
22. This notice is being issued with no financial commitment. The buyer reserves the right to amend or vary any part thereof at any stage. Buyer also reserves the right to relax terms & conditions of the quotation in the interest of work and withdraw the quotation, should it become necessary at any stage.
23. Buyer reserves the right to withdraw/ cancel/ amend the quotation at any stage without assigning any reason whatsoever.
24. OEM of Equipment should have their service centre/facility at Patna. They should provide minimum three years onsite warranty to the supplied items. The name and address of service centre should be indicated in the offer.

**25.**Quantities of items are tentative. It may increase or decrease as per requirements.

**26.**Warranty and onsite support on all items will be for **three** years.

**27.Clarification regarding contents of the bids** - During evaluation and comparison of quotations, the buyer may, at its discretion, ask the bidder for clarification of their bid. The request for clarification will be given in writing and no change in prices or substance of the bid will be sought, offered or permitted. No post-bid clarification on the initiative of the bidder will be entertained.

**28.**Bidder with product certifications related to the bids should be annexed with technical bids. Alteration in the make & models will not be permitted, without the permission of AKU.

**29.**Financial Quotations of only those firms will be opened whose Technical Quotations are found responsive.

**30.**Rejection of Quotations: Canvassing by the bidder in any form, unsolicited letter and post-Quotation correction may invoke summary rejection. Conditional Quotations will be rejected.

**31.**The bidder should adhere with all seriousness to the time schedule provided by the Aryabhatta Knowledge University, Patna.

**32.**The rates should be quoted and legibly written both in words and Figures. In case of corrections, the same must be attested by the bidder with full signature; however, no overwriting is permissible.

**33.**In case of any discrepancy between words and figures, in financial bid, the rates in words shall be accepted as correct.

**34.**If the rates are not quoted both in words and figures, the tender will summarily be rejected.

**35.**Bidders are required to quote only for one item against each line item. In case of optional quote, the tender will summarily be rejected.

**36.**The bidder shall indemnify the Aryabhatta Knowledge University, Patna in all respects and meet and pay off the litigation expenses and all the liabilities including damages, sums etc. arising out of and as a consequence of the negligence, deficiencies, mistakes, lapses, delays etc. in the execution of the various jobs and the services provided.

**37.**Payments will be released after successful delivery & installation of the equipment.

**38.**Dispute if any, will be subject to Patna jurisdiction only.

**39.**The work order placed is liable to be cancelled at any time if any document submitted by agency is found fake and misleading.

**40.Amendment of Quotation Document**

- a. At any time prior to the last date for receipt of quotations, the buyer may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Quotation Document by an amendment.
- b. The amendment will be notified through official website of Aryabhatta Knowledge University for all the prospective bidders.

- c. In order to afford prospective bidder reasonable time in which to take the amendment into account in preparing their quotations, the buyer may, at its discretion, extend the last date of the receipt of the Quotations.

#### **41. Performance Security**

- d. Within **21 days** of the receipt of notification of award from the buyer, the successful bidder shall furnish the performance security in form Of Bank Guarantee in accordance with the conditions of contract in the Performance Security Form provided in the bidding documents or in another form acceptable to the buyer.
- e. Failure of the successful bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the buyer may make the award to the next lowest evaluated bidder or call for new bids.

#### **42. Deadline for Submission of Bids**

- f. Bids must be received by the buyer at the specified address no later than the time and date specified in the Invitation for Bids. In the event of the specified date for the submission of bids being declared a holiday for the buyer, the bids will be received up to the appointed time on the next working day.
- g. The buyer may, at its discretion, extend this deadline for submission of bids by amending the bid documents, in which case all rights and obligations of the Buyer and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

#### **43. Late Bids**

Any bid received by the buyer after the deadline for submission of bids prescribed by the Purchaser, pursuant to ITB Clause 19, will be rejected and/or returned unopened to the Bidder.

#### **44. Modification and Withdrawal of Bids**

- a. The bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by the buyer prior to the deadline prescribed for submission of bids.
- b. The bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance. A withdrawal notice may also be sent followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.
- c. No bid may be modified subsequent to the deadline for submission of bids.
- d. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder on the bid form. Withdrawal of a bid during this interval may result in the bidder's forfeiture of its bid security.

(Authorized Signatory)

Name & Designation

**Annexure-I**  
**Technical BID**

**QUOTATIONER'S PROFILE (SHOULD BE ATTACHED WITH TECHNICAL BID DOCUMENT)**

1. Name of the Quotationer / Firm
2. Name of the person submitting the Quotation whose photograph is affixed  
(in case of proprietary/partnership firms the Quotation has to be signed by proprietor/  
partner/director only, as the case may be)
3. Address of the firm
4. Telephone Number with STD code Office
5. Fax
6. E-mail
7. Registration & incorporation particulars of the firm
  - a. Partnership.
  - b. Proprietorship
  - c. Private Limited
  - d. Public Limited
  - e. Others

(Please attach attested copies of documents of registration/incorporation of your firm with the competent authority as required by Business Law)

8. Name of the Proprietor / Partners / Directors
9. Bidder's Bank, its address and current Account No
10. Permanent Income Tax number & Income tax circle (please attach copy of the last income tax returns)
11. GST details
12. ISO 9001 & 20001 Certificates
13. Copy of last three year's audited accounts
14. Copy of last three year's ITR
15. OEM's Authorization Certificate (specific to this tender)
16. Details of service centre at Patna.
17. Details of experience during last five years.
18. Affidavit
19. BG(bank guarantee) in form of Performance Security

I / We hereby declare that information furnished above is true and correct.

PLACE:

SIGNATURE of the Bidder/Authorised signatory  
(with seal)

DATE :

**TECHNICAL SPECIFICATIONS WITH BILL OF QUANTITY**

S.NO.	FEATURE	SPECIFICATIONS	QTY
<b>SITC OF BROADCAST QUALITY FULL HD PTZ ROBOTIC CAMERA</b>			<b>3</b>
<b>Lens</b>			
1	Lens Zoom Ratio	20 x (optical) or better	
2	Digital Zoom	10x Minimum or better	
3	Focal Length	f=6.7-130mm, F1.6-F3.4 or better	
<b>Camera</b>			
4	Resolution	HD – 1080/50i & 1080/50p (1920X1080 resolution)	
5	Imaging Device (Type)	MOS/CMOS sensor	
6	Sensor Size	1/2" Advanced HD CMOS or better	
7	Effective Pixels	≥ 2.20 Megapixels	
8	Focus System	Auto / Manual	
9	SNR	70dB or Better	
10	Output Format	1080/50p/i	
11	Operation Speed	Pan 0.1 to 120 deg/sec / Tilt 0.1 to 80 deg/sec or better	
12	Rotation Angel	Pan ± 170 deg / Tilt – 35 to +80 deg	
13	Control Interface	RS232 \ RS422 Serial Visca	
14	Video Outputs	3G/HD-SDI	
15	Power Supply	Suitable power supply adaptor operating at 230 V±10%, 50 Hz AC as per indian power conditions	
16	Ceiling Mount	Provision to hang PTZ camera with the ceiling/wall mount to be provided	
17	Remote Control	PTZ Camera should be either remotelly controlled through Video Production Switcher OR an external suitable wired Remote Control Panel supporting camera control through Ethernet/RS232/RS422.	
<b>SITC OF PTZ CAMERA CONTROLLER</b>			<b>1</b>
1	Control Input/Output	RS485, RS422, RS232, RJ45 (UDP, TCP)	
2	Control Signal Format	2400 4800 9600 19200 38400 (For RS-422 RS-485 RS-232)	
3	OLED Display Screen	Display	
4	Camera Channel	7 or more	
5	Joystick	Required	
6	Control Protocol	VISCA, PELCO P/D	
7	Power Consumption	Max 24 Volts (+/- 10%)	
8	Supplied Accessories	Power Adaptor & Sub-system to complete the connectivity with offered PTZ cameras	
<b>SITC OF DOCUMENT CAMERA / VISUALIZER</b>			<b>1</b>
1	Zoom	16X or More	



2	Digital Zoom	8X or more	
3	Output Interface	VGAx1 HDMIx1 AUDIOx1	
4	Input Interface	VGAx1 HDMIx1 AUDIOx1	
5	Function	Image Freeze; Auto Focus; Screen Split	
6	Auto White Balance	Text/Image Mode Switch.	
7	Storage	Image Storage on USB	
<b>SITC OF FULL HD DIGITAL VIDEO PRODUCTION SWITCHER FOR TV STUDIO</b>			<b>1</b>
1	Video Input Channels	Minimum 12 or more with 8 x SDI or more and 4 x HDMI or more	
2	Video Output Channels	Minimum 9 or more with 6 x SDI or more and 3 x HDMI ore more	
3	Audio Inputs	4 XLR analogue audio input channels with each channel carrying four audio tracks	
4	Audio Outputs	2 XLR de-embedded analogue audio output channels	
5	Upstream Keys	Minimum 4 Upstream Keys for chromakey, linear and luma keys as well as picture-in-picture	
6	PiP	Minimum 8 Picture-in-Picture (4 flex source included), with configurable ratio, position and size	
7	Downstream Keyer	Minimum 2 Downstream Keyers for linear and luma keys	
8	CG support	Minimum 2 static or animated logos with configurable position and size	
9	Transition Effects	WIPE, MIX, DVE and CUT transitions	
10	Wipe Patterns	Minimum 32 WIPE patterns such as circle and heart with adjustable border width and color softness	
11	Transition Effects	Supports stinger transition for live sports broadcast	
12	Configurable Inputs	Any input (1-12) can be used as a frame store	
13	XPT	Should supports XPT (Cross Point Assignment)	
14	Tally	Dual color (red/green) tally outputs	
15	Sync Reference	Supports Tri-Level and Black Burst sync reference	
16	Memory Presets	2 readily available user memory presets	
<b>SITC OF FULL HD INTERACTIVE DISPLAY PANEL</b>			<b>1</b>
1	Panel	Min 65 -inch or more LED display	
2	Aspect Ratio	16:9	
3	No. of pixels(HxV)	1920 x 1080 pixels	
4	Contrast Ratio	4000:1	
5	Brightness	350cd/m2 or better	
6	Panel Life	40000 hours or Better	
7	Touch Panel/Detection Method	Built in touch/infrared blocking detection method	

8	Multi touch operation	Upto 12 touch in PC Mode	
9	Terminal Inputs	HDMI IN x 2, DVI-D IN x 1, Video IN x 1	
		Component Video/RGB IN x 1, PC IN x 1, Audio IN x 2,	
10	Output	VGA Out x 1	
11	Control	LAN x 1, RS232C IN	
12	USB memory viewer	Type A X 1, External Speaker Out	
13	Other features	Should be able to operate without PC Should support E-mail configuration directly on Interactive Display Wireless mirroring of Android/Windows Devices (Miracast) Interactivity with Mac Additional Slot for Analog /Digital inputs-for future expansion Picture in Picture Picture in White board	
		<b>Computer for Interactive Display will be supplied by university</b>	
<b>SITC OF FULL HD LED DISPLAY PANEL</b>			<b>2</b>
1	Screen Size (diagonal)	49" +/- 1 inches	
2	Aspect Ratio	16:9	
3	Panel Backlight	LED	
4	'Display Resolution	1920 (V) x 1080 (H)	
5	Viewing Angle	176 degree or better	
6	Speakers	In Built with the Panel with 10W RMS	
7	HDMI Input	2 or more	
8	Other Inputs	USB, RCA, VGA	
<b>SITC OF 12 CHANNEL ANALOG AUDIO MIXER CONSOLE</b>			<b>1</b>
1	Channels:	12 Channel Audio mixer	
2	Inputs - Mic Preamps:	8 input Preamps for Mic	
3	Inputs - Line:	10 Line Input	
4	EQ Bands	3-band EQ with a swept mid band	
5	Aux Sends	3 configurable auxiliary buses	
6	Connectors	XLR-type and ¼" metal jack connector sockets	
7	Other : Inputs/ Outputs	RCA phono stereo playback inputs and record outputs	
9	Metering	Ten-segment LED output metering	
10	Design	Intuitive and comprehensive solo system	
11	USB connectivity	USB/Interface 2-in/2-Out	
12	Headphone out	Headphone output 1 x 1/4"	
<b>SITC OF AMPLIFIED/POWERED SPEAKERS</b>			<b>3</b>
1	Type	2 Way Active Studio Monitor	
2	Frequency Range	50 Hz-20 kHz	
3	Max Peak SPL	102 dB or better	

4	SIGNAL TO NOISE RATIO	75dBA	
5	LF Driver Size	5" or better	
6	HF Driver Size	1" or better	
7	Low-Frequency Amplifier Power	40 watts or Better	
8	High-Frequency Amplifier Power	40 watts or Better	
9	Total Power Output	80 Watt or better	
10	Input Types	1 x XLR, 1 x TRS Balanced	
11	AC Input Voltage	100-240 VAC +/- 10% 50/60 Hz	
<b>SITC OF WIRELESS LAPEL MICROPHONE</b>			<b>2</b>
<b>Receiver</b>			
1	Switching bandwidth	≤ 30.5 MHz	
2	Sensitivity	6.3 dBμV / -100 dBm	
3	Diversity System	Microprocessor-controlled diversity	
4	Modulation	Wideband FM	
5	Audio bandwidth	40 – 18 000 Hz or better	
6	T.H.D.	0.3 %	
7	SNR	110 dB or better	
8	Audio outputs	1 x XLR sockets balanced, 1 x TS ¼" / 6.3 mm jack sockets unbalanced	
<b>Transmitter (Battery Operated)</b>			
9	Switching bandwidth	≤ 30.5 MHz	
10	RF output power	10 or 50 mW	
11	Modulation	Wideband FM	
12	Audio input	TB3M / 3-pin mini-XLR socket (max. 2.5 Vrms)	
13	Audio bandwidth	40 – 18 000 Hz or better	
14	T.H.D.	≤0.7 %	
15	SNR	> 120 dB	
<b>SITC OF WIRED LAPEL MICROPHONE</b>			<b>2</b>
1	Transducer Principle	Pre-polarized condenser	
2	Frequency Range	40–18,000 Hz or better	
3	Polar Pattern	Omni-directional	
4	Sensitivity	Sensitivity at 1,000 Hz: 7 mV/Pa	
5	Sound Pressure Level for 1% THD	110 dB or better	
6	S/N Ratio (A-weighted)	60 dB or better	
7	Power Requirement	9–52 V phantom power	
<b>SITC OF WIRELESS HANDHELD MICROPHONE</b>			<b>2</b>
<b>Receiver</b>			
1	Switching bandwidth	≤30.5 MHz	
2	Sensitivity	6.3 dBμV / -100 dBm	
3	Diversity System	Microprocessor-controlled diversity	
4	Modulation	Wideband FM	

5	Audio bandwidth	40 – 18 000 Hz or better	
6	T.H.D.	0.3 %	
7	SNR	110 dB or better	
8	Audio outputs	1 x XLR sockets balanced, 1 x TS ¼" / 6.3 mm jack sockets unbalanced	
<b>Transmitter (Battery Operated)</b>			
9	Microphone capsules	Dynamic (super cardioid)	
10	Switching bandwidth	≤30.5 MHz	
11	RF output power	10 or 50 mW	
12	Audio bandwidth	40 – 18 000 Hz or better	
13	Modulation	Wideband FM	
14	Max. SPL	≤ 144 dB SPL	
15	T.H.D.	≤0.7 %	
16	SNR	> 120 dB	
<b>SITC OF PROFESSIONAL HEADPHONES</b>			<b>2</b>
1	Headphone type	Closed-back	
2	Wearing Style	On-ear	
3	Max. Input Power	200 mW or Better	
4	Audio frequency bandwidth	18 - 18000 Hz or Better	
5	Sensitivity headphones	112 dB SPL or Better	
6	Rated Impedance	32 Ohms or Better	
7	Audio Interface	TypeStereo plug: 3.5mm (1/8") with 6.3 mm (1/4") screw-on adapter	
<b>SITC OF PROFESSIONAL HDD BASED DIGITAL VIDEO RECORDER &amp; PLAYER</b>			<b>1</b>
1	Type	Hard drive based video recorder, with removable hard drive enclosure, designed for studio desktop applications	
2	Supported Video Resolutions:	1920x1080 50i/59.94i/60i 1280x720 50P/59.94P/60P 702x576i or 720x480i	
3	Saving of recorded file	(minus 2 seconds at the end of the file) in case of accidental power failure	
4	File System	Should use the NTFS file system	
5	Time Code	Should have time code input and output	
6	Gen-Lock	Should have gen-lock input and pass-through	
7	Power	Should have Power-On Record and Power-On Play	
8	Timelapse Recording	Should be able to do timelapse recording	
9	Reference-in	Should have Ref-in/loop-through, Black Burst, and Tri-level Signal	
10	HDD Interface	HDD should have USB 2.0 to connect to a PC or MAC based NLE system	
11	Media	Bidder should quote two numbers of 1TB HDD with the recorder with HDD enclosure	

<b>SITC OF H.264 VIDEO STREAMING SERVER/RECORDER</b>			<b>1</b>
1	Application	Broadcast quality HD / SD H.264 network streaming	
2	Compression	H.264 / AVC video CODEC, up to High Profile Level 4.0	
3	Maximum bitrate	6 Mbit	
4	Input source	SDI / HDMI / CVBS	
5	Feature Support	Should support de-interlace video streaming for progressive output	
6	Panel Control	Front panel control for recording and streaming	
7	Audio inputs	Selectable embedded or external audio source	
8	Network feature	DHCP Client, RTSP over TCP/UDP/HTTP with MPEG TS. RTMP, HLS protocols (unicast only)	
9	Presets	Flexible video scaler presets for streaming out	
10	GOP structure	IBBP, IPPP and IBP	
11	GUI	Web UI for system configuration and FW upgrade	
12	External Media	Should support connectivity with external USB storage device (Up to 1TB storage device)	
<b>SITC OF SDI TO HDMI CONVERTER</b>			<b>1</b>
1	Input:	1 x SDI, 1 x unbalanced audio	
2	Output	1 x HDMI, 1 x SDI (loop through)	
3	Output Resolutions	Video output format is the same as the input format	
4	Equalizer	Required	
5	Reclock	Required	
<b>SITC OF UP/DOWN/CROSS CONVERTER</b>			<b>2</b>
1	Application	For VGA/HDMI Output from Computer to SDI Devices	
2	Input	VGA x 1, HDMI x 1 , HD/SD-SDI x 1	
3	Output	SDI x 2, HDMI x 1, SDI Loop thru BNC	
4	Supported video output formats:	1080p60/59.94/50, 1080p30/29.97/25/24/23.98, 1080i60/59.94/50, 720p60/59.94/50, 525i, 625i	
5	Audio Format (Input):	Analog Audio L/R : stereo audio SDI / HDMI embedded audio	
6	Audio Format (Output):	SDI embedded audio up to 8CH, 48KHz, PCM audio HDMI embedded audio up to 8CH, 48KHz, PCM audio	
<b>SITC OF AUDIO EMBEDDER</b>			<b>2</b>

1	Type	SDI 2-CH Audio Embedder	
2	Per Channel I/O	1 input to 4 output SDI Distribution Amplifier w/embedded Audio and re- clock.	
3	Format Support	3G supported up to 1080 50P/59.94P/60P)	
4	Audio Inputs	RCA and Mini-XLR inputs with Mixer	
5	Output	Two SDI outputs with embedded Audio	
<b>SITC OF SDI DISTRIBUTION AMPLIFIER</b>			<b>2</b>
1	Input	2 x 3G/HD/SD-SDI inputs	
2	Output	6 x 3G/HD/SD-SDI distribution outputs with re-clock	
3	Audio	Should support embedded Audio SDI	
4	Input Control	Two input video sources should be controlled by A/B switch or GPI remote (non-locked)	
5	Power	DC-12V	
	<b>Supported video formats:</b>		
6	3G-SDI	1080P 50/59.94/60	
7	HD-SDI	1080P 23.98/24/25/30 1080i 50/59.4/60 720P 50/59.94/60	
8	SD-SDI	525i /625i	
<b>SITC OF 220 WATTS COOL LIGHTS FOR STUDIO</b>			<b>4</b>
1	Power	220W(4x55)	
2	Voltage	220V-240V	
3	Colour Temperature	3200k / 5600k	
4	Number of Tubes	4x55W	
5	C-Clamp Safety Chain	To be provided	
<b>SITC OF 110 WATTS COOL LIGHTS FOR STUDIO</b>			<b>8</b>
1	Power	110W(2x55)	
2	Voltage	220V-240V	
3	Colour Temperature	3200k / 5600k	
4	Number of Tubes	2x55W	
5	C-Clamp Safety Chain	To be provided	
<b>SITC OF STATE OF THE ART SEMI-CIVIL &amp; ACOUSTICS WORKS/TREATMENT OF STUDIO SIZE (Maximum 900 Sqft - W x L in Total for both Studio &amp; PCR)</b>			<b>1 LOT</b>
1	Studio Size(For reassurance of measurements, Bidders are suggested to do a site survey before bidding. Changes in cost due to measurements will not be accepted at a later stage)	Studio Wall 1 (_____)Studio Wall 2 (_____)Studio Wall 3 (_____)Studio Wall 4 (_____)Ceiling (_____)	

2	Providing of Acoustic Treatment on the Studio Walls and Ceiling		
3	Upto 3 feet from floor- Glass Wool of 32 kg density to be filled between wall and 12 mm thick ply which will be finished with teak wood veneer with polish (inside of the studio)		
4	Above 3 feet - Rockwool of 40 kg density to be filled between Wall and the perforated Gypsum as being proposed for acoustic		
5	Ceiling shall also be acoustically treated with Rockwool of 40 kg density in a Grid of 2'x2', which will be placed on the the perforated Gypsum borad, which will be further finished with the paint after jointing and taping		
7	Providing and fixing of 55mm thick single leaf Acoustic Door of size 2100*1050 with vision panel of 300x300 and the door hardware including door closer, handle, lock and a door stopper		_____ Sqft
8	Providing of 8 mm thick Sandwitched Glass Observation Window between Studio and PCR		_____ Sqft
9	Providing and fixing of movable frame with Chroma Mat/Cloth		_____ Sqft
10	Providing and Installation of MS (Round Tube of 50mm dia) Studio Lighting grid of 4'x4'		_____ Kg
11	Providing and laying of PVC flooring in Studio area		_____ Sqft
12	Providing and Fixing of designer Anchor Table of size made from 22mm thick MDF with laminate finish and proper edge binding in suitable ply		1
<b>SITC OF STATE OF THE ART SEMI-CIVIL &amp; ACOUSTICS WORKS/TREATMENT OF PCR SIZE (Maximum 900 Sqft - W x L in Total for both Studio &amp; PCR)</b>			<b>1 LOT</b>
1	PCR Size (For reassurance of measurements, Bidders are suggested to do a site survey before bidding. Changes in cost due to measurements will not be accepted at a later stage)	PCR Wall 1 (_____) PCR Wall 2 (_____) PCR Wall 3 (_____) PCR Wall 4 (_____)	
2	Providing of Acoustic Treatment on the PCR Walls		
3	Upto 3 feet from floor- Glass Wool of 32 kg density to be filled between wall and 12 mm thick ply which will be finished with teak wood veneer inside of the studio		
4	Above 3 feet - Rockwool of 40 kg density to be filled between Wall and the perforated Gypsum as being proposed for acoustic		
5	Providing and fixing of 55mm thick single leaf Acoustic Door of size 2100*1050 with vision panel of 300x300 and the door hardware including door closer, handle, lock and a door stopper		_____ Sqft
6	Providing and Fixing of Acoustic Grid Ceiling (600x600x20) with 15 mm Suprafine grid system (NRC 0.7) and supports as required at the height as per the drawing/ Inst. Of Engineer Incharge		_____ Sqft

7	Providing and laying of PVC flooring		Sqft
8	Providing and Fixing of Technical Table at PCR of size 1800x750x750mm with laminate finish and proper edge binding in suitable ply		1
<b>SITC OF ELECTRICAL WORK IN TECHNICAL AREA</b>			<b>1 LOT</b>
1	Providing and Laying of Shooting Light Wiring with PVC Tray		1 Lot
2	Providing and Fixing of Aluminium conductor power cable		Sq. Ft
3	Providing and Fixing of Shooting Light Sockets		20
4	Providing and fixing of LED Studio Ceiling Lights in Studio		8
5	Providing and Fixing MCB Junction		1
6	Providing of Power points on studio walls		12
7	Providing of Power points on PCR walls		4
8	Providing and fixing of LED Studio Ceiling Lights in PCR		4
9	Providing and Fixing of PCR Table Power Points		4 Sets
10	Providing and fixing of LED Studio Ceiling Lights in Edit/Technical Area		2
<b>INTEGRATION MATERIAL &amp; ENGINEERING SERVICES</b>			<b>1 LOT</b>
1	Cabling	It is required to set-up the facility for HD operation therefore all the cabling should support HD operations	
2	Installation Material	All installation materials including racks, power cables, interconnection cables, connectors and other accessories (including nuts, bolts, screws etc.) required for installation of the complete system shall be quoted	
3	System Completeness	Completeness of the system will be responsibility of the bidder	
4	System Completeness	If any material is found short during installation because of which equipment is not functional, completion certificate may not be issued	



**Annexure-II**  
**FINANCIAL BID**

Sl no.	Item Description	Price Per Unit / Per Set +Taxes(separately)	Quantity (Pcs)

In the part relating to Price Bid, the OEM/Bidder must provide the following:-

**Price bid including supply, installation, operation & maintenance of all Items shall be submitted in only above format.**

We, ....., on award of order, undertake to supply the items at the above prices per unit.

PLACE

DATE

Signature of the Bidder  
/ Authorized Signatory  
(with seal)

## ANNEXURE-III

Important last dates in this context are as follows

Last Date & Time of receipt of Bid/Quotation	<b>24/JUNE/2019 up to 12:30 pm</b>
Date & Time of opening of Technical Bid	24/JUNE/2019 At 1:30 PM
Date & Time of opening of Financial bid	24/JUNE/2019 At 2:30 PM
Place of Bid Opening	AKU Conference Hall