

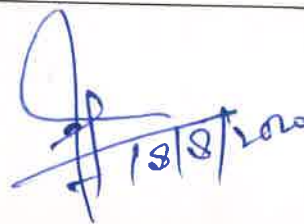
**NALANDA UNIVERSITY, RAJGIR
CORRIGENDUM (TECHNICAL)-01**

NIT No: NU/Engg/14/5B/NIT/2019-20/04 Dated 22.07.2020

Ref: NU/Engg/50/2019-20/N43-44/Technical Corrigendum 01 Date: 18th August, 2020

NAME OF WORK: Supply, Installation, Testing & Commissioning of Audio and Video System for all the Priority Building at the Permanent Campus of Nalanda University (NU), Nalanda, Rajgir, Bihar.

DOCUMENT REFERENCE, CLAUSE NO & PAGE NO	EXISTING PROVISION AS PER DOCUMENT	PROVISIONS TO BE READ AS (FOR ALL CONCERNED PLACES IN THE NIT)
NIT Page 8 & 22 /115 Point m Clause 6	Performance Bank Guarantee (PBG): The successful bidder must submit a Performance Bank Guarantee (PBG) of 5% of the order value within 30 days of receipt of supply order by Nalanda University, District Rajgir, Bihar as per the format provided in the tender document. This Bank Guarantee should remain valid Six months beyond the period of delivery, installation & warranty.	Undertaking to the effect that a Performance Bank Guarantee (PBG) of 5% of the order value will be submitted within 15 (Fifteen) days of the receipt of Letter of award (LOA) or Supply Order from Nalanda University, Bihar. The CPWD guidelines will be followed.
NIT clause 4.3, page 12, And NIT Clause 12.4, A, Page no 17	4.3. The bidder shall furnish a SOLVENCY CERTIFICATE of value not less than INR. 2.55 Crores certified by his bankers. Such certificate shall not be of a date, which is more than six months prior to the date of submission of tender. 12.4 Nalanda University would evaluate the technical bids based on the following Point criteria:	Solvency certificate submission is Optional due to COVID 19 Pandemic Case 1. upon non-submission of the Solvency certificate: The bidder will be awarded on the basis of 20 marks criteria in place of 16 marks in the turnover section. Case 2: In case of Submission of the Solvency Certificate: Evaluation Criteria Remains un-changed.
NIT clause 4.1, page 12,	4.1. The Bidder should have Supply Orders/ Contracts/ Agreements issued by/ signed with Government of India (Ministry/ Department/ Undertaking/ PSU/ Educational Institutions such as IIT's, NIT's, or other such Central Universities/ Autonomous Government Bodies) for similar works value as mentioned below herein executed by the bidders in last Seven years ending as on previous day of last date of submission of bids. 4. Eligible Bidders For the above experience, the bidder should enclose the completion certificate duly issued by the end user. The bidder should have completed Audio & video project/s of at least ONE similar job not less than INR 5.10 Crore OR TWO similar job not less than INR 3.82 Crore OR THREE similar works not less than INR 2.55 Crore. The similar work means supply & installation	4.1. The Bidder should have Supply Orders/ Contracts/ Agreements issued by/ signed with Government of India (Ministry/ Department/ Undertaking/ PSU/ Educational Institutions such as IIT's, NIT's, or other such Central Universities/ Autonomous Government Bodies) for similar works value as mentioned below herein executed by the bidders in last Seven years ending as on previous day of last date of submission of bids. 4. Eligible Bidders For the above experience, the bidder should enclose the completion certificate duly issued by the end user. The bidder should have completed Audio & video project/s of at least ONE similar job not less than INR 5.10 Crore OR TWO similar job not less than INR 3.82 Crore OR THREE similar works not less than INR 2.55 Crore. The similar work means supply & installation & on-site support of all/ most of the IT, audio & video items

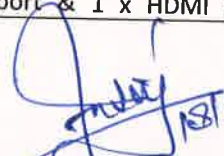

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	& on-site support of all/ most of the IT, audio & video items mentioned in this tender document in a single project on turn-key basis in last seven years in India.	mentioned in this tender document in a single project on turn-key basis in last seven years in India. The abroad/ outside Indian land may also be considered subject to the issuance of the certificate by the Indian Govt or Indian Ministry/Department.
SECTION IV – Schedule of Requirement Page #26 Sr. No. 2 BOQ Item No 2 And BOQ Item No 3, 5 for the distance and signal range part	SITC of 3 I/P Switcher cum Transmitter with Audio embedding; supporting video output on a cable length up to 230 ft. (70 meters) on CAT6; Input: 2 x HDMI / Display port, 1 x VGA + Audio 3.5mm; Output: video output shall be on a single CAT6 shielded twisted pair cable; Auto switching between inputs; the device shall be HDCP compliant and with EDID support.	SITC of 3 I/P Switcher cum Transmitter with Audio embedding; supporting video output on a cable length up to 330 ft. (Minimum 100 meters) on CAT6; Input: minimum 1 x HDMI, 1 x Display port, 1 x VGA + Audio 3.5mm; Output: video output shall be on a single CAT6 shielded twisted pair cable; Auto switching between inputs; the device shall be HDCP compliant and with EDID support. The distance and signal range to be read as 100 meter.
SECTION IV – Schedule of Requirement Page #30, 53 Sr. No. 54 BOQ Item No 54	Central control unit should have the following features, the central unit for powering, configuring and Controlling connected Chairman, Delegate units, and option to control up to 100 units without any power supply. The system should have in built digital processing and control/ transmission of the Digital audio signals. It should have basic management facilities with at least 8 open microphones should have recording facility SD Card.	SITC of Fully digital Main/Central Conference Controller. Unit should be able to control and power 60 units or more without any power supply, should have LED/LCD display for necessary controls and configuring the system, minimum. 6 or better open microphone support, daisy chain connectivity through CAT6 shielded cable via RJ-45 or OEM-specific cable via OEM-specific socket. OEM-specific cable shall be inclusive. Should have recording facility on/through SD Card / USB.
SECTION IV – Schedule of Requirement Page #65 Sr. No. 86 BOQ Item No 86	2-way active studio monitors ideally suited for computer studios, audio and multimedia workstations and keyboard monitoring Built-in powerful 2 x 20-Watt amplifiers with immense headroom Powerful woofers and high- resolution tweeters provide an ultra-linear frequency response Ultra-high resolution 24- bit/192 kHz D/A converters for an incredible dynamic range Optical and coaxial inputs to directly connect digital audio sources by S/PDIF interface.	2-way active studio monitors ideally suited for computer studios, audio and multimedia workstations and keyboard monitoring Built-in powerful 2 x 20-Watt amplifiers with immense headroom Powerful woofers and high- resolution tweeters provide an ultra-linear frequency response Ultra-high resolution 24- bit/192 kHz D/A converters for an incredible dynamic range Optical and coaxial inputs to directly connect digital audio sources by RCA/AUX/XLR input.
TECHNICAL SPECIFICATION Page #39 Sr. No. 2	3 I/P SWITCHER PLUS TRANSMITTER WITH AUDIO EMBEDDING: Should supporting video output on a cable length minimum 230 ft. (70 meters) on CAT6; Input: 2 x HDMI / Display port, 1 x VGA + Audio 3.5mm; output: 1 x HDMI, video output shall be on a single CAT6 shielded twisted pair cable; Auto switching between inputs; the device shall be HDCP compliant and with EDID support. • Input signals requirements: Minimum 2 x HDMI / Display port, 1 x VGA on + 1 x unbalanced analog audio on 3.5mm connector. • Output signals requirements: 1 x RJ-45 connector for HDMI video to be transmitted over CAT6 based shielded twisted pairs cable conforming EIA/TIA568 compliant transmission • Video transmission: shall support video	3 I/P SWITCHER PLUS TRANSMITTER WITH AUDIO EMBEDDING SITC of 3 I/P Switcher cum Transmitter with Audio embedding; supporting video output on a cable length up to 330 ft. (Minimum 100 meters) on CAT6; Input: minimum 2 x HDMI , 1x Display port, 1 x VGA (optional)+ Audio 3.5mm; output: 1 x video output shall be on a single CAT6 shielded twisted pair cable; Auto switching between inputs; the device shall be HDCP compliant and with EDID support. • Input signals requirements : minimum 2 x HDMI , 1x Display port, 1 x VGA (optional)+ 1 x unbalanced analog audio on 3.5mm connector. • Output signals requirements : 1 x RJ-45 connector for HDMI video to be transmitted over CAT6 based shielded twisted pairs cable conforming EIA/TIA568

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	<p>transmission over CAT6 up to (100 mtr)</p> <ul style="list-style-type: none"> • Other ports: minimum 1 x RJ-45 based Ethernet port supporting TCP/IP at minimum 100Mbps or 1 x RS232 or 1 x USB port for control <p>Video standards supported: the unit shall be EDID & HDCP compliant</p>	<p>compliant transmission</p> <ul style="list-style-type: none"> • Video transmission: shall support video transmission over CAT6 up to minimum 330 feet (minimum 100 meters) • Other ports: minimum 1 x RJ-45 based Ethernet port supporting TCP/IP at minimum 100Mbps or 1 x RS232 or 1 x USB port for control • Video standards supported: the unit shall be EDID & HDCP compliant
<p>TECHNICAL SPECIFICATION</p> <p>Page #41</p> <p>Sr. No. 8</p>	<p>HDMI SCALAR CUM MATRIX SWITCHER – Minimum 6 video inputs:</p> <p>4 x HDMI and 2 x CAT6, and minimum three video outputs - 2 x HDMI and 1 x CAT6, 1 x audio output. It shall support resolutions upto 1920 x 1200. It shall support auto selection of inputs and the device shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements: minimum 4 x HDMI plus minimum 2 x CAT6 inputs for accepting video over length minimum 230 ft. (70 meters) over a shielded twisted pair CAT6 cable. • Output signals requirements: minimum 2 x HDMI plus minimum 1 x CAT6 output for transmitting video over length minimum 230 ft. (70 meters) over a shielded twisted pair CAT6 cable • Other ports: minimum 1 x RJ-45 based Fast Ethernet port supporting TCP/IP at 10/100Mbps or 1 x RS232 or, 1 x IR port for control port for Relay & 40W amplified audio output. • Video standards supported: the unit shall be EDID & HDCP compliant • The device shall support automatic input selection via last detected input source <p>Resolutions supported – minimum up to 1920 x 1200</p>	<p>HDMI SCALAR PLUS MATRIX SWITCHER – Minimum 6 video inputs, outputs - minimum 3 x video and 1 x audio</p> <p>SITC of scalar cum matrix switcher having minimum six inputs - 4 x HDMI and 2 x CAT6, and minimum four video outputs - 2 x HDMI outputs, 2 X CAT 6 , 1 x audio output. It shall support resolutions up to 1920 x 1200. It shall support auto selection of inputs and the device shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements: minimum 4 x HDMI plus minimum 2 x CAT6 inputs for accepting video over 330 feet (100 meters) over a shielded twisted pair CAT6 cable. • Output signals requirements: minimum 2 x HDMI plus minimum 1 x CAT6 output for transmitting video over 330 feet (100 meters) over a shielded twisted pair CAT6 cable • Other ports: minimum 1 x RJ-45 based Fast Ethernet port supporting TCP/IP at 10/100Mbps or 1 x RS232 / 1 x IR port & 40 amplified audio output • Video standards supported: the unit shall be EDID & HDCP compliant • The device shall support automatic input selection via last detected input source • Resolutions supported – minimum up to 1920 x 1200
<p>TECHNICAL SPECIFICATION</p> <p>Page #41</p> <p>Sr. No. 9</p>	<p>HDMI SCALAR PLUS MATRIX SWITCHER – Minimum 6 video inputs, outputs - minimum 2 x video and 1 x audio</p> <p>Scalar cum matrix switcher having minimum six inputs - 4 x HDMI and 2 x VGA + Audio, and minimum 2 x HDMI outputs; It shall support resolutions up to 1920 x 1200. It shall support auto selection of inputs and the device shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements: minimum 4 x HDMI plus minimum 2 x VGA + Audio. • Output signals requirements: minimum 2 x HDMI • Other ports: minimum 1 x RJ-45 based Fast Ethernet port supporting TCP/IP at 10/100Mbps or 1 x RS232 or, 1 x IR port for control port for Relay & 40-watt amplified 	<p>HDMI SCALAR PLUS MATRIX SWITCHER – Minimum 7 video inputs, outputs - minimum four video outputs - 2 x HDMI outputs, 2 X CAT 6 and 1 x audio</p> <p>SITC of scalar cum matrix switcher having minimum seven inputs - 5 x HDMI and 2 x CAT6, and minimum four video outputs - 2 x HDMI outputs, 2 X CAT 6 , and 1 x audio output.</p> <p>It shall support resolutions up to 1920 x 1200. It shall support auto selection of inputs and the device shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements: minimum 5 x HDMI plus minimum 2 x CAT6. • Output signals requirements: minimum 2 x HDMI. • Other ports: minimum 1 x RJ-45 based Fast Ethernet port supporting TCP/IP at 10/100Mbps or 1 x RS232 / 1 x IR port & 40 amplified audio output • Video standards supported: the unit shall be EDID &

	<p>audio output.</p> <ul style="list-style-type: none"> • Video standards supported: the unit shall be EDID & HDCP compliant • The device shall support automatic input selection via last detected input source <p>Resolutions supported – minimum up to 1920 x 1200</p>	<p>HDCP compliant</p> <ul style="list-style-type: none"> • The device shall support automatic input selection via last detected input source • Resolutions supported – minimum up to 1920 x 1200.
<p>TECHNICAL SPECIFICATION</p> <p>Page #41</p> <p>Sr. No. 10</p>	<p>1 x 8 HDMI DISTRIBUTION AMPLIFIER</p> <p>1:8 Distribution Amplifier having 1 x HDMI input and minimum 8 x HDMI outputs, shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements: minimum 1 x HDMI • Output signals Requirements: minimum 8 x HDMI • Video standards supported: the unit shall be EDID & HDCP compliant <p>Approved Make: Crestron/Extron/AMX/Lightware</p>	<p>1 x 6 HDMI DISTRIBUTION AMPLIFIER</p> <p>SITC of 1:6 Distribution Amplifier having 1 x HDMI input and minimum 6 x HDMI outputs, shall be EDID and HDCP compliant.</p> <ul style="list-style-type: none"> • Input signals requirements : minimum 1 x HDMI • Output signals requirements : minimum 6 x HDMI • Video standards supported: the unit shall be EDID & HDCP compliant
<p>TECHNICAL SPECIFICATION</p> <p>Page #42</p> <p>Sr. No. 13</p>	<p>WIRED CONTROL PANEL</p> <p>Podium mountable, minimum 8-Button wired control panel for controlling various devices; it shall have - one volume control knob; minimum 1 x RS 232, 2 x Relays and 1 x IR ports, 1 x LAN, to control the devices. A wired button control panel shall be provided for control of devices - minimum 8 buttons or more, with required no. of RS232, IR and RJ-45 based Ethernet IP Ports to control up to 1 projectors, 1 screens, 1 - 6x2 switcher, 1 Annotation processor, 1 video recording device, 1 – 3 Input transmitter + receiver for (input switching) and audio system DSP as per the requirements of individual room.</p> <p>Minimum requirement of ports shall be as:</p> <ul style="list-style-type: none"> • Should have minimum 1 x Ethernet on RJ45 for monitoring and control over TCP/IP protocols, supporting minimum Fast Ethernet (10/100Mbps) speeds 1 x bi-directional RS232 ports for control. • Should have minimum 1 x IR ports (source/emitter), 2 x relay ports. • Should have minimum 8 x programmable buttons with backlighting/LED indication for various AV control functions assignments, including input selections Should have minimum 1 x rotary dial/knob for volume control 	<p>WIRED CONTROL PANEL</p> <p>SITC of podium mountable, minimum 8-Button wired control panel for controlling various devices; it shall have - one volume control knob; minimum 3 x RS 232, 3 x Relays and 2 x IR ports, 1 x LAN to control the devices. A wired button control panel shall be provided for control of devices - minimum 8 buttons or more as per the requirements of each individual room/area, with required no. of RS232, IR and RJ-45 based Ethernet IP Ports to control up to 1 projectors, 1 screens, 1 - 6x2 switcher, 1 annotation processor, 1 video recording device, 1 – 3 Input transmitter + receiver for (input switching) and audio system DSP as per the requirements of individual room.</p> <p>However, following minimum requirement of ports shall be met:</p> <ul style="list-style-type: none"> • Should have minimum 1 x Ethernet on RJ45 for monitoring and control over TCP/IP protocols, supporting minimum Fast Ethernet (10/100Mbps) speeds • Should have minimum 3 x bi-directional RS232 ports for control. • Should have minimum 2 x IR ports (source/emitter ports) • Should have minimum 3 x relay ports • Should have minimum 1 x IR sensor for reading IR commands from devices • Should have minimum 8 x programmable buttons with backlighting/LED indication for various AV control functions assignments, including input selections • Should have minimum 1 x rotary dial/knob for volume control
<p>TECHNICAL SPECIFICATION</p> <p>Page #43</p>	<p>Supply of Audio and Video Recording and Streaming hardware with following built-in Inputs (HDMI / VGA/ IP LAN), HDMI / VGA Out, Audio Inputs, with ability to record up to</p>	<p>SITC of Lecture Recording and Streaming device having minimum two video inputs – either as (a) 2 x HDMI or (b) 1 x HDMI and 1 x HD-SDI combination, minimum 1 x audio feed port & 1 x HDMI output for confidence</p>


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Sr. No. 15	4 full motion video inputs in single frame along with audio, Should have minimum 1TB inbuilt storage.	monitor and 1 x RJ-45 (LAN) port for streaming and recording application system. It shall be capable of recording minimum 2 full motion video inputs in single frame along-with audio. It shall be provided with minimum inbuilt 400GB storage and 1TB additional backup storage.
TECHNICAL SPECIFICATION Page #44 Sr. No. 20	<p>Full HD Video Conferencing System endpoints (codec), capable of multi-party conferencing via the MCU; the codec shall have minimum 2 video inputs (1 x HDMI/HDCI and 1 x HDMI/DVi as per OEM's camera), minimum 2 x HDMI video outputs, output resolution supported shall be minimum up to 1920 x 1080p at 60fps. Audio Inputs - 1 x Digital Microphone pod, 1 x RCA Stereo; Audio Outputs - 1 x HDMI embedded, 1 x Stereo, 1 x RCA. The device shall be supplied with required licenses. All components of the VC system like Codec, Camera, Touch panel and Microphones should be from the same OEM. The system shall be inclusive of</p> <ul style="list-style-type: none"> - 1 x Codec, minimum 1 x Full HD 1920 x 1080 resolution supporting camera providing HDMI or DVi output having min. 12x optical zoom with connecting cable, The codec must be based on ITU standards & hardware based. No software-based solution will be accepted. It should support latest video standards H.264/H.265 <hr/> <ul style="list-style-type: none"> • The MCU and Video Conferencing endpoints, camera and microphones and associated software shall be from the same OEM/vendor • The endpoints shall support H.323, and SIP standards for communications. • The endpoints shall support 1080p60fps, 1080p30fps and 720p30 resolutions. • It shall be included with a High Definition autofocus camera with automatic exposure and automatic white balance supporting up to the 1080p30 format, a minimum horizontal field of view of 65°, at least a 12x optical zoom and a minimum range for PAN of +/-90° and for TILT of +/- 20°. • The endpoint shall be able to support up to two cameras directly on codec or through additional module and two screens, and support dual video capabilities both in H.323 (H.239) and SIP (BFCP based). • It shall support the ITU-T standards H.263, H.264, H.264 High Profile, SVC for video and the ITU-T standards G.711, G.722, G.722.1 Annex C for narrowband, wideband and super wideband audio. • It shall provide full band (20 kHz) audio 	<p>FULL HD VIDEO CONFERENCING SYSTEM ENDPOINTS (CODEC) : SITC of Full HD Video Conferencing System endpoints (codecs), capable of multi-party conferencing via the MCU; the codec shall have minimum 2 video inputs (1 x HDMI/HDCI and 1 x HDMI/DVi as per OEM's camera), minimum 2 x HDMI video outputs, output resolution supported shall be minimum up to 1920 x 1080p at 60fps. Audio Inputs - 1 x Digital Microphone pod, 1 x RCA Stereo; Audio Outputs - 1 x HDMI embedded, 1 x Stereo, 1 x RCA. The device shall be supplied with required licences. All components of the VC system like Codec, Camera, Touch panel and Microphones should be from the same OEM. The system shall be inclusive of - 1 x Codec, minimum 1 x Full HD 1920 x 1080 resolution supporting camera providing HDMI or DVi output having min. 12x optical zoom with connecting cable, 1 x Touch panel for control, Microphone array with audio connecting cable and any other cables as may be required as per OEM to make system completely functional. The codec must be based on ITU standards & hardware based. No software based solution will be accepted. It should support latest video standards H.264/H.265.</p> <ul style="list-style-type: none"> • The endpoints shall support H.323, and SIP standards for communications. • The endpoints shall support 1080p 60fps, 1080p 30fps and 720p 30 resolutions. • It shall be included with a High Definition autofocus camera with automatic exposure and automatic white balance supporting up to the 1080p 30 format, a minimum horizontal field of view of 65°, at least a 12x optical zoom and a minimum range for PAN of +/-90° and for TILT of +/- 20°. • The endpoint shall be able to support up to two cameras for tracking either directly on codec or through additional module and two screens, and support dual video capabilities both in H.323 (H.239) and SIP (BFCP based). • It shall support the ITU-T standards H.263, H.264, H.264 High Profile, SVC/AVC for video and the ITU-T standards G.711, G.722, G.722.1 Annex C for narrowband, wideband and super wideband audio. • It shall provide full band (20 kHz) audio capability and support both the ITU standard (G.719) and

capability and support both the ITU standard (G.719) and ISO/MPEG low delay standard.

- It shall allow to connecting multiple microphones having echo cancellation feature for each microphone.
- It must be capable of capturing high definition content from a laptop/PC/DVI source up to 1920x1080 at 30fps.
- It must include multipoint conferencing capabilities supporting up to at least 6 parties (1+5) in continuous presence and support for dual video while in a multipoint session.
- It must support embedded AES confidentiality for both room video channel and content video channel simultaneously. It must provide security tools for authentication and integrity (for SIP)

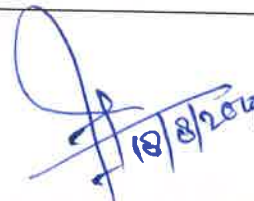
- It must provide simultaneous support for IPv4 and IPv6, and tools for QoS.
- Minimum 1 x RJ-45 LAN network port for private network connection must be available.
- It must provide support for skype & other soft vc platform.
- It must have a WEB interface for management.
- It must provide the network administrator management tools to control and administer conferences.
- It must have an API command set.
- It must support H.460.18/.19 Firewall Traversal.
- Audio I/O interface of the VC Room System must support both Digital and Analog.
- Administrator tools such as for Remote Management of the GUI, TCP Dump shall be possible.
- Codec shall have minimum 2 video inputs (1 x HDMI/HDCI and 1 x HDMI/DVI as per OEM's camera), minimum 2 x HDMI video outputs, output resolution supported shall be minimum upto 1920 x 1080p at 30fps. Audio Inputs - Digital Microphone pod x 1, RCA Stereo x 1; Audio Outputs - 1 x HDMI embedded, Stereo x 1, RCA x 1.
- It shall include one Full HD 1920 x 1080 resolution supporting camera providing HDMI or DVI output and Having min. 12x zoom.

ISO/MPEG low delay standard.

- It shall allow to connecting multiple microphones having echo cancellation feature for each microphone.
- It must be capable of capturing high definition content from a laptop/PC/DVI source up to 1920x1080 at 30fps.
- It must include multipoint conferencing capabilities supporting up to at least 6 parties (1+5) in continuous presence and support for dual video while in a multipoint session.
- It must support embedded AES confidentiality for both room video channel and content video channel simultaneously.
- It must provide security tools for authentication and integrity.
- It must provide simultaneous support for IPv4 and IPv6, and tools for QoS.
- Minimum 1 x RJ-45 LAN network port for private network connection must be available.
- It must have a WEB interface for management.
- It must provide the network administrator management tools to control and administer conferences.
- It must have an API command set.
- It must support H.460.18/.19 Firewall Traversal.
- Audio I/O interface of the VC Room System must support both Digital and Analog.
- Administrator tools such as for Remote Management of the GUI, TCP Dump shall be possible.
- It shall include one Full HD 1920 x 1080 resolution supporting camera providing HDMI or DVI output and having min. 12x zoom
- It shall include one microphone pod providing 360 degree omni-directional coverage and shall be supplied with OEM audio cable.
- System should be scalable of enhancing video conferencing experience with advanced Speaker & face-recognition technology such that it automatically scans the room and seamlessly commands the main camera to appropriately frame the users/speaker during a call without any manual intervention.

LIST OF ACCEPTABLE MAKES/MANUFACTURERS Page #69

The Corrigendum of make list is included as many of the bidders were not able to understand makes for each item. There are few amendment's as well as the reference to the BOQ item numbers is added in to the corrigendum document for better clarity.

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Sr. No. 1 Item Description & Acceptable Make / Brand / Manufacturer	Video Signal Equipment – Switcher, Scalars, Extenders for HDMI, VGA, Distribution Amplifiers, Control Processor, Wired Button Panel etc.	BoQ Sr. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 68, Video Signal Equipment - Input Aggregation Units, Transmitters, Receivers, Video Extenders, Wireless Presentation Units, Scalars, Switchers, Matrix Switchers, Distribution Amplifiers, Cable CUBBY, Control Processors, Wired Button Panels
	Crestron / Extron / AMX.	AMX, Crestron, Extron, <u>Kramer</u>
Sr. No. 12 Item Description & Acceptable Make / Brand / Manufacturer	Ultra-Short Throw 3600 Lumens, LCD /DLP projectors	BoQ Sr. No. 24
	Epson / Optoma / Sony	Epson / <u>Hitachi</u> / Optoma / Sony
Sr. No. 13 Item Description & Acceptable Make / Brand / Manufacturer	Laser Projectors – 6500 Lumens, LCD/DLP	BoQ Sr. No. 25
	Barco / Christie / Panasonic	Barco / Christie / <u>Digital Projection</u> / Epson / Panasonic
Sr. No. 17 Item Description & Acceptable Make / Brand / Manufacturer	Microphone, Speaker and Control Cable	BoQ Sr. No. 41, 42, 43, Microphone, Speaker and Control Cable
	Belden, Klotz, Krystal	Belden / Klotz / <u>Kramer</u> / Krystal
Sr. No. 18 Item Description & Acceptable Make / Brand / Manufacturer	Audio DSP	BoQ Sr. No. 44, 45 Audio DSP
	Bi-amp / BSS / Extron / Crestron	Bi-amp/ Bose / BSS / Crestron / Extron
Sr. No. 22 Item Description & Acceptable Make / Brand / Manufacturer	AV Racks	BoQ Sr. No. 51,52 & 53 AV Racks
	APW / Dynamic / Comrack / Valrack / Prime Rack	APW President / Comrack / Dynamic / Prime Rack / Panduit / Valrack
Sr. No. 24 Item Description & Acceptable Make / Brand / Manufacturer	Video Cables (HDMI, VGA + Audio, Display Port DP / miniDP) and USB, Shielded/FTP - CAT6/7a cable	BoQ Sr. No. 57, 58, 59,60, 61, 62, 63, 64, 65, 66, 67 Video Cables (HDMI, VGA+Audio, DisplayPort DP/miniDP) and USB, Shielded CAT6 cable
	Crestron / Extron / Falcon / Belden	Belden / Crestron / Extron / Falcon / <u>Kramer</u>
Sr. No. 25 Item Description & Acceptable Make / Brand / Manufacturer	AV Networking Switch and AV Wireless Access Point	BoQ Sr. No. 69, 70, AV Networking Switch and AV Wireless Access Point
	Cisco / HPE / Extreme Networks / D-link	Cisco / HPE / Extreme Networks

Engineering


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Registrar
Nalanda University, Rajgir