

Technical Specifications and Other Terms and Conditions

Pre-Bid Clarifications/Corrigendum for Tender No - GEM/2026/B/7687336

S. No	Page No.	Description	Queries	Clarification/Corrigendum
1	26 of 79, s.no 2	Annotation on the interactive panel should be possible using a PC/Laptop (One Note or any other writing applications), both within the MTR environment and independently without MTR.	- Do you want annotated content to be given into the MTR - Do you want the content coming via wireless to be shown on the interactive display and the same content should be annotatable and sent to the local active LED wall, MTR, BYOD.	The requirement is that annotation functionality shall be available on the Interactive Display while using a connected PC/Laptop(MAC/Windows/Linux) during both Microsoft Teams Rooms (MTR) operation and standalone operation (using onenote, whiteboard etc) connected PC/Laptop. Annotation capability during wireless presentation is desirable but not mandatory. Should be able to show it on the multiple display present in the Hall. Any Additional Accessories required to meet the above functionality should be included in the bundled price.
2	26 of 79, s.no 3	The tender does not mention the laptop input points in the existing BOM captured nor in the new bill of material. Hence kindly confirm how many laptop points (HDMI, USB-C) is to be considered as existing and new while quoting	Do you want the content given from the laptop to be loaded with a third-party software compatible for annotation as per the interactive display model selected.	The required connectivity (HDMI/USB-C and USB touch, as applicable) shall be provided to enable seamless interaction between the Interactive Display and the connected device /source (laptop on Mac-Windows/Linux OS) The connectivity shall support the intended purpose of using the Interactive Display with standard laptop-based annotation and collaboration software such as Microsoft OneNote, Microsoft Whiteboard, and similar applications. No specific third-party annotation software is mandated. However, if the OEM provides such software as an additional feature without any extra cost or licensing implications, it may be offered. Annotation support during

				wireless presentation is desirable but not mandatory.
3	26 of 79, s.no 3	The solution should support integration of all types of laptops, irrespective of the available connectivity options, with the MTR and other AV devices.	Kindly confirm whether USB- C connectivity is mandatory for laptop connectivity as all the laptops getting migrated to USB-C	The solution shall support seamless integration of presenter laptops with the MTR system and other AV devices, irrespective of the laptop's available connectivity interfaces. The bidder shall provide a solution that accommodates all commonly used laptop (MAC/Windows/Linux) connectivity options (such as USB-C, HDMI, or equivalent through suitable interfaces/adapters, as required) to ensure seamless BYOD conferencing, content sharing, annotation, and other intended functionalities. It shall be the bidder's responsibility to ensure that the proposed solution fully meets the functional requirements for all commonly used laptop types. The Bidder should ensure that the quoted model/brand should support the above functionality or should provide alternate solution to meet the requirement.
4	27 of 79, S.no 9	In case of MTR failure or during BYOD meetings, camera switching between the presenter and the audience cameras should be made possible	Kindly elaborate the functional requirement	In the event of an MTR system failure or when conducting BYOD meetings, the room shall remain fully functional without requiring any additional hardware. The required functionality may be achieved through the existing system using cable reconfiguration or the available AV infrastructure, as applicable. The proposed solution shall enable users to conduct meetings using a laptop-based conferencing platform with the ability to switch between the presenter and audience cameras while retaining access to the required AV peripherals (camera, microphone, speakers, display, etc.). The bidder shall ensure that all intended conferencing

				functionalities are available in both MTR and BYOD modes.
5	27 of 79 s.no 10	The control processor should be capable of handling and controlling all integrated AV devices with the provided touch panel for room controls within MTR and outside MTR environment	All the existing rooms has the QSC core processor which is capable of doing control functions by adding the appropriate license. However, we understand that the tender is asking for new control processor which has to be integrated into the existing eco-system. We would also like t bring to you notice that the new control processor which is asked in the tender is the non QSC control processor and will result into compatibility issues due to the improper API integration. Hecne we will request the honourable committee to relook at the control processor specifications. We would recommend using the existing control processor working in QSYS platform to be considered for smooth integration	The Bidder may quote for the Control Processor which meet the functionality irrespective of the brand. However, Control Processor quoted should be compatible and should be integrated with the existing system.
6	27 of 79 S.no 12	Possibility of remote participant, Faculty and in-room participant visible in the MTR video call	For mixing all the videos we need to have a separate hardware mixer which is not captured in the existing bill of material. Hence Kindly confirm if any additional hardware of video mixer need to be added.	This scope of work may considered as "deleted"
7	27 of 79 S.no 13	Possibility of using the Same touch panel of QSC for MTR controls, as well as the Room controls (Existing)	We can use existing touch panel provided the specification captured in the tender need to be brand neutral. The current specification of the control processor is pertaining to a Crestron CP4 which will work only with Crestron touch panel. Hence request t he honourable committee to mention the generic functional requirement.	The vendor should quote for the touch panel as per BoQ which should be capable of handling MTR and Room Controls/AV with control processor irrespective of Brand to meet the functionality. The possibility of using the existing QSC touch panel is only optional during integration and not compulsory
8	27 of 79 S.no 16	Recommended to have UC Engine and Control Processor from same	In the professional AV industry, there is only one OEM that can deliver the requirement of same brand for UC engine	The clause is only Recommendation, the bidder may quote for any OEM subject

		OEM for easy room control and management for the User	and control processor. Every OEM which makes compute sources the compute and its chipsets from companies like HP, Intel, Lenovo, Dell, Acer etc. And they rebrand this hardware under a package bundle. If the specification is insisted the tender will become a single brand tender of Crestron as Crestron is the only OEM that sells the UC engine and the control processor as a single brand. Hence for a fair evaluation of a tender we request the honourable committee to generalise the specification and not to insist on clause number 16.	to meeting the technical and functionality requirements
9	27 of 79	Interactive display	The specification provided is exactly matching LG-TR3DK Series. Request the committee to consider the specification in such a way that other prominent brands like Samsung, Panasonic, newline, ViewSonic gets qualified. We are enclosing the catalogues of all the four brands for easy reference to provide a brand neutral specification.	Refer to technical specs - below
10	32 of 79	MTR	The specification captured is proprietary in nature and narrowing down to a single brand. In the market MTR computes are manufactured by multiple manufacturers like HP, Lenovo, Intel etc. Hence insisting on the specification of current tender is contradicting the usage of the existing touch panel and will result into additional touch panels being purchased at additional cost. Hence we request the committee to consider general specification without compromising the functional requirements like Native MTR, support BYOD with charging, supporting third party peripherals, supporting network standards. The current specification captured in the tender is from a single brand Crestron CX-100 and the same specification will not be available with	The bidder may quote for any OEM subject to meeting the functionality requirements and GFR norms. (GFR Rule 144 (xi))

			any other manufacturer. hence request the committee to take appropriate decision for a fir evaluation. The details of the alternative brands available in the market are attached for your reference.	
11	34 of 79	Control System	The specification captured is again from Crestron CP4. The tender is also insisting to reuse the existing hardware of the touch panel for cost optimization. Hence If a third party control processor is purchase IIT will have to purchase additional control processor, additional touch panel while your existing facility has both the latest touch panel and control processor. (4- Series Control engine to be removed as it is proprietary. External Storage option to be removed. As we can load the program via control processor software. File system to be removed as it can be loaded via software. Control Capabilities: 10 simultaneous programs to be modified as 8 or more simultaneous programs. .AV framework terminology to be removed) Hence request the committee to remove the control processor from the above BOQ and request the bidders to utilize the existing hardware for optimal performance.	The bidder may quote for any OEM subject to meeting the functionality requirements as per the Scope of Work and GFR norms. (GFR Rule 144 (xi))
12	36 of 79	HDMI Matrix Switcher / HDMI TX/RX	Request committee to provide the purpose of 8x8 matrix switcher and its signal routing as we can achieve the video routing effectively with the existing infrastructure with an additional 4x3 matrix switcher with a provision of expansion. The specification capture for	Flexible signal routing and integration of all required AV sources and display destinations within the room and future scalability. The bidder may quote for any OEM subject to meeting the requirements of

			8x8 matrix switcher is again a single brand from Crestron MD 8x8. However, if the committee needs a 8x8 matrix switcher there are multiple options available from brands like Extron, Kramer , Lightware. (HDR 10 and HDR 10+ to be mentioned as only HDR. Automation. AV framework terminology to be removed. Certifications: UKCA to be removed) Hence request the honourable committee to provide a generic specification where all the above brands can meet the functional requirement.	purpose as stated and GFR norms. (GFR Rule 144 (xi))
13	37 Of 79	Capture card (HDMI – USB)	Specification provided is of single brand Crestron. The functional requirement is to convert the video to USB feed matching the resolution of the MTR platform. Of this to be achieved there are products from Inogeni, Lumens , Extron, Kramer which can meet the functional requirement without compromising the functional performance. (Capture Resolution: 120Hz to be replaced with 60Hz. Bus Powered via host USB interface connection to be removed.) Hence request the committee to provide general specification and help all the above brands to meet.	The bidder may quote for any OEM subject to meeting the functionality requirements and GFR norms (GFR Rule 144 (xi)).
14	38 of 79	USB Switcher	The specification provided in tender is single brand specific and request the committee to provide generic specifications. For achieving the above functionality there are equivalent brands like, Extron, Kramer, Icorn, Inogeni that can deliver the functional requirement. (4 Port USB Hub with 4 USB-B Ports can be modified as 4 USB-B/USB-C.	The bidder may quote for any OEM subject to meeting the functionality requirements and GFR norms (GFR Rule 144 (xi)).

			Peripheral ports shall be USB-A/USB-C. Dual Power ingestion is proprietary and shall be modified as single power ingestion. USB Battery Charging to be removed.)	
15	25 of 79	Quantities Of the existing material, room layout, signal flow diagram.	Request the committee to provide the quantities of the existing material along with room layout and the existing signal flow diagram for ensuring seamless integration between the existing and new infrastructure	refer to the below table for designer files Design File: Link: https://drive.google.com/drive/folders/10aOba0xPelh1gVw0WAZf3pbMdkqPTGkZ?usp=sharing
16			Kindly confirm whether equivalent OEM solutions meeting or exceeding the specified technical parameters will be accepted for all active components such as Interactive Displays, MTR Devices, Control Processors, Matrix Switchers, PTZ Cameras, USB Switchers, HDBaseT Extenders and Network Switches.	The brands quoted by the vendor should meet the minimum technical requirements as per the tender document. Please refer to the Note mentioned in the tender document under Technical Specifications. The bidder may quote for any OEM subject to meeting the functionality requirements and GFR norms (GFR Rule 144 (xi)).
17			The specifications of the Control Processor, Matrix Switcher and MTR Hardware appear to align with specific OEM architectures. Kindly confirm whether equivalent products from other globally recognized OEMs having similar functionality and interoperability with the existing AV infrastructure will be accepted.	The bidder may quote for any OEM subject to meeting the requirements of purpose & scope or work as stated and GFR norms.
18			Please confirm whether the existing QSC ecosystem licenses, programming, touch panel configurations and integrations required for the project will be made available to the successful bidder for seamless integration.	Access to the QSC design files will be shared via Corrigendum. Link – QSYS Design File (.qsys) Requesting to kindly download the Designer Software from QSC to open the file. Please note that active licenses are currently embedded within the physical hardware devices; the Institute does not possess separate digital copies or backup installer files.

				Any additional licenses, programming revisions, GUI reconfigurations, or structural modifications required to deliver a fully integrated, seamless system must be comprehensively provisioned by the bidder and factored entirely into their financial bid. Link: https://drive.google.com/drive/folders/10aOba0xPelh1gVw0WAZf3pbMdkqPTGkZ?usp=sharing
19			Kindly provide details regarding access to the existing AV network, DSP programming files, control processor configurations and any existing room automation source files required for integration.	The existing AV system is an isolated setup and is not currently configured on an external network; all operational configurations reside directly within the local hardware cores. Bidders are directed to carefully review the Bill of Quantities (BoQ) of the existing AV setup. Bidders must thoroughly analyse these parameters prior to bidding to engineer a definitive, standalone integration solution; no post-bid claims regarding network or core architectural assumptions will be entertained. Site visit recommended for better understanding.
20			For the classrooms LHC-06 and LHC-13, please confirm the exact camera mounting locations and estimated cable routing distances for PTZ camera installation.	Please refer to Point No. (7) – Site Visit of the Technical Document.
21			Please clarify whether all required structured cabling, electrical accessories, HDMI/USB extenders, connectors, conduits, casing-capping and mounting hardware are to be included within the bidder's scope under the lump-sum accessories item.	Yes. Detailed breakdown to be provided in the Technical Bid.
22			Kindly confirm whether a site survey prior to bid submission is mandatory or	Please refer to Point No. (7) – Site Visit of the Tender Document. Prior

			optional and whether a prior appointment is required for the same.	appointment is not required; however, the visit should be on working days and during working hours only (Monday to Friday – 9:00 AM to 5:00 PM).
23			Please clarify whether the six-month onsite technical support resource is required full-time during working hours or on a call-out basis.	Full-time during working hours.
24			Kindly confirm whether OEM Authorisation Letters (MAF) are mandatory for all quoted products or only for major active equipment.	Not required for consumable items (e.g., cables, small retail items). Mandatory for Interactive Panel, MTR, Control Processor, HDMI Switcher & Camera and other non-consumable items.
25			Please confirm whether the Institute will provide network points, power outlets and rack space at all installation locations or the bidder is expected to provide the same.	The Institute will provide only one raw power point (terminated within the local rack) and one core network LAN drop (terminated near the podium) per classroom.
26			Kindly clarify whether cloud-based management and monitoring platforms associated with the offered solution require separate licensing and whether such licenses should be included in the bidder's scope.	Yes. MTR Pro License is not in the scope of the bidder. Any other license, cloud-based management, monitoring, dashboarding, or firmware update licenses associated with the offered solution must be fully integrated and included within the commercial bid. The bidder must guarantee that all software features, enterprise cloud licenses, or subscription fees required for unhindered operations are active for the entire contract/warranty tenure without any recurring cost liability to the Institute. The license should be in the name of the Institute and not the Bidder
27			Please confirm whether successful completion of the technical demonstration alone will qualify the bidder technically, subject to compliance	Please refer to Point No. (7) – Technical Demonstration in the Technical Bid.

			with all eligibility and qualification criteria.	
28		Integrated kit designed for native Microsoft Teams Rooms (MTR)	We request you to clarify or revise the requirement for switching from native Microsoft Teams Rooms to native Zoom Rooms from the touch panel without any additional hardware, as this functionality is generally not supported by standard OEM platforms. Solutions requiring only software/license changes should be considered compliant.	The bidder may quote for any OEM subject to meeting the requirements of purpose & scope or work as stated and GFR norms. Please find the minimum technical specs tabular.
29		Control System	We request the authority to permit equivalent or higher-performance control systems instead of specifying a 4-Series architecture and platform specific features. Compliance should be based on functional requirements and compatibility with all AV devices in the BOM rather than a specific OEM architecture	The bidder may quote for any OEM subject to meeting the requirements of purpose & scope or work as stated and GFR norms. Please find the minimum technical specs tabular.

Technical Specifications

Interactive Flat Panel	
Parameter	Minimum Technical Specification
Display	65-inch or higher with IPS or equivalent display with 4K UHD (3840 × 2160) resolution, minimum 400 cd/m ² brightness, minimum 1200:1 contrast ratio, 178° viewing angle, anti-glare toughened glass with minimum 7H hardness, minimum 25% haze, infrared touch technology supporting a minimum of 32 simultaneous touch points, supplied with a minimum of two stylus pens, minimum 50,000 hours panel life, and minimum 16 × 7 duty cycle.
Operating System	Android 13 (EDLA Certified) or latest equivalent/better.
Processor	Quad-core processor or equivalent/better.
Memory	Minimum 8 GB RAM and 64 GB internal storage.
Audio	Built-in speakers with minimum 20 W RMS combined output.
Connectivity	Minimum 3 × HDMI Inputs, 1 × HDMI Output, 3 × USB 3.0 Type-A, 1 × USB 2.0 Type-A, 1 × USB Type-C supporting DisplayPort Alt Mode and minimum 65 W Power Delivery, 2 × USB Touch, 1 × RJ45 Ethernet, 1 × RS-232, 1 × Audio Output, Dual-band Wi-Fi (2.4 GHz & 5 GHz) supporting IEEE 802.11ac or better, and Bluetooth 5.0 or above.
OPS Slot	One standard OPS slot.
Minimum Functionality	The Interactive Flat Panel shall support native viewing of PDF, Microsoft Office documents, images, audio and video files without requiring additional third-party software. It shall include a built-in whiteboard with annotation, note import and export, automatic save and recovery of whiteboard content in the event of power interruption, native wireless screen sharing compatible with Windows, MAC, Android, flicker-free display, OEM-provided device management software for firmware updates/Management (Optional), and should be able to downscale the HDMI output resolution to any resolution 1080 with built in software or an OEM-supported solution providing equivalent functionality. All software/License etc. features shall be native to the OEM platform or officially supplied and supported by the OEM throughout the warranty period.
Certifications	BIS, RoHS
Warranty	Minimum 3 Years Comprehensive On-site OEM Warranty

Compliance	The bidder shall submit OEM technical datasheets, brochures, or official OEM website references demonstrating compliance with the offered specifications. The bidder shall supply all standard OEM accessories required for the complete operation of the Interactive Flat Panel, including a minimum of two passive stylus pens, power cord, remote control, interface cables, mounting accessories, and any other standard accessories supplied by the OEM. The bidder shall also provide all hardware, software, licenses, cables, adapters, connectors, accessories, and other items required for complete installation, integration, testing, commissioning, and successful execution of the scope of work, without any additional cost to the Institute. The offered model shall not be End-of-Life (EOL), End-of-Sale (EOS), discontinued at the time of bidding.
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Unified Collaboration Advanced Video Conference System for custom space with a Wall/Table Mounted Control Interface for Microsoft Teams Rooms

MTR	Minimum Technical Specification
	● Shall be a native Microsoft Teams room device. ● Shall comprise a Mini PC/Compute Unit, a minimum 10-inch Microsoft Teams-certified touch panel, and an OEM-supported BYOD/presentation interface. Where native BYOD functionality is not available, an OEM-supported equivalent solution shall be provided as part of the offered system. ● Shall be based on an Intel Core processor or equivalent/better, with Windows 10 IoT Enterprise, Windows 11 IoT Enterprise, or the latest Microsoft-supported operating system certified for Microsoft Teams Rooms (MTR) or equivalent. The system shall support seamless integration with the supplied control processor for complete AV device and room control through the Microsoft Teams Rooms touch panel. ● Shall support mode swap between Native Teams and Native Zoom app (Optional if supported by OEM) ● Shall have a minimum of 10" touchscreen or bigger ● Shall integrate the same 10" surface-mounted/wall mount (with supporting accessories to convert wall mount to surface and vice-versa) MTR touch panel interface to operate Room Controls/AV ● Shall support a minimum of 2x touch screens to be connected to the system for ease of use (Desirable). ● Shall support third-party Teams certified DSP and Mics ● Shall support third-party Teams-certified cameras

	• The solution shall minimize network infrastructure requirements. Where additional network connectivity is required for system functionality, the bidder shall supply all necessary managed network switches and accessories as part of the offered solution. • Shall support a minimum of 2x displays to be connected to view the far end and presentation on different displays • Shall support Microsoft Teams Rooms one-touch meeting join functionality as supported by the Microsoft Teams Rooms application. • Shall support wired presentation through HDMI and USB-C or provide an supported equivalent solution. • Shall support the BYOD feature to connect any laptop and make a third-party call using the room peripherals - camera, mic and speaker, etc. • Shall natively include a transmitter and receiver for HDMI presentation, or an external transmitter/receiver Shall be supplied for presentation and BYOD (USB Peripherals) • Shall support an additional camera to be connected to the whiteboard. • Shall be able to create a camera preset and control the camera via the touch panel • Shall support minimum 1080P call quality or better • Shall support call control and room device control on the same touch panel • Shall be able to load a custom GUI to control the room devices • Shall be supplied with all the interconnect cables, mounting brackets and accessories supplied along with the unit • Shall support on-premises/cloud management services, to control, maintain, manage and monitor these devices from the IT room. • Shall comply with applicable safety and EMC standards, CE, FCC, BIS, WPC ETA, RoHS Certifications • Shall have Remote Control Software from the same OEM to manage and Control within the network.
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Control Processor/System	
Control System	Minimum Technical Specification • Shall be an enterprise-grade on-premises programmable control processor suitable for centralized AV and room automation. • Shall support Ethernet, RS-232/422/485, IR/Serial, Digital I/O, Relay, and IP-based device control either through built-in ports or OEM-supported expansion modules. • Shall support computer, web-based and touch panel-based control, configuration and monitoring of integrated AV devices. • Shall support seamless integration with the supplied Microsoft Teams Rooms (MTR) touch panel for complete room and AV control. • Shall support all AV devices and Room Controls (HVAC, Lighting etc) • Shall support native control applications for iOS and Android devices. • Shall support communication with additional OEM control devices and expansion modules through Ethernet and/or OEM-supported communication interfaces. • Shall support integration with Building Management Systems (BMS) through BACnet or an equivalent industry-standard protocol, either natively or through an OEM-supported interface, if required.

	● Shall have a minimum of 1 × RS-232/422/485, 2 × Relay, 2 × IR/One-way Serial, 2 × Digital I/O and 1 × Gigabit Ethernet port, either onboard or through OEM-supported expansion hardware. ● Shall have sufficient onboard memory and processing capability to support the required control programming, room automation, custom user interface, diagnostics, logging, firmware, and operation of all AV devices included in the scope of work. ● Shall support IPv4, IPv6 and SNMP v3 for enterprise network management. ● Shall support secure remote programming, diagnostics, monitoring, firmware updates and configuration through OEM cloud and/or on-premises device management software. ● Shall support PoE/PoE+ or external power supply, as recommended by the OEM. ● Shall be suitable for surface mounting or rack mounting, and all necessary mounting accessories shall be supplied. ● Shall be capable of controlling all AV equipment included in the scope of work. ● Shall comply with applicable safety and EMC standard, CE, FCC, BIS certifications. ● Shall be supplied with all OEM accessories, interface cables, connectors, licenses, programming software (where applicable), mounting hardware and any additional hardware, software, adapters, accessories or other items required for complete installation, integration, testing, commissioning and successful execution of the scope of work without any additional cost
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8x8 HDMI Switcher	
HDMI Switcher	Minimum Technical Specification ● Shall be a professional enterprise-grade 8 × 8 HDMI matrix switcher supporting independent routing of any input to any output. ● Shall support HDMI 2.0 or better with minimum 4K UHD (4096 × 2160) @ 60 Hz, 4:4:4, HDR or equivalent HDR formats. ● Shall support HDCP 2.3 or higher.

- Shall support EDID management, HDCP management, automatic input detection, hot-plug detection, input/output status monitoring, programmable routing presets, seamless switching with minimal switching latency, and continuous HDCP authentication during source switching.
- Shall support de-embedding of audio from HDMI inputs through a minimum of two stereo analogue audio outputs or OEM-supported equivalent.
- Shall support HDMI embedded multichannel digital audio pass-through and audio de-embedding, including LPCM and equivalent industry-standard digital audio formats.
- Shall support secure network communication using HTTPS, SSH, TLS, IEEE 802.1X, or equivalent enterprise security standards.
- Shall support integration with the supplied enterprise control processor and Microsoft Teams Rooms touch panel for complete source routing and AV control through a customized graphical user interface.
- Shall support preset recall and source routing through the supplied touch panel and control processor.
- Shall support Ethernet and serial-based control using REST API, Telnet, SSH, RS-232, or equivalent industry-standard protocols to facilitate seamless integration with the supplied enterprise control processor and enable complete operation through the Microsoft Teams Rooms touch panel.
- Shall support switching of sources directly from the Microsoft Teams Rooms touch panel through the supplied control processor.
- Shall support remote diagnostics, health monitoring, firmware updates and configuration through OEM cloud and/or on-premises device management software.
- Shall support configuration, monitoring and control through a standard web browser and external enterprise control systems.
- Shall support integration with third-party enterprise AV control systems.
- Shall support automatic display detection and automatic display power control through the supplied enterprise control processor.
- Shall be supplied with OEM power supply, rack mounting accessories and all interface cables required for installation.
- Additional OEM-supported hardware, interface modules, adapters or accessories may be supplied, where required, to meet the specified functional requirements without compromising system functionality or performance.
- Shall comply with applicable safety and EMC standard, CE, FCC, BIS certifications.
- Shall be supplied with all hardware, software, licenses, accessories, interface cables, adapters, connectors, mounting hardware and any additional items required for complete installation, integration, testing, commissioning and successful execution of the scope of work without any additional cost

1) For the Information of the Bidders: Existing AV Set Up In The LHC with Quantity

Existing AV Setup - LHC - 1 (72 Capacity)

S. No	Description of Item	Make	Model	Qty
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1	Ceiling Speakers	QSC	AC-C8T	8
2	Digital Power Amplifier	QSC	CX-Q 2K4	1
3	Dante License	QSC	-	1
4	Scripting License	QSC	-	1
5	UCI License	QSC	-	1
6	AV Bridging License	QSC	-	1
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58	1
8	Wireless Headworn Microphone	Shure	BLX4RIN/P31	1
9	Gooseneck Microphone	Shure	MX418	1
10	Antenna Distribution Box	Shure	UA844+SWB-IN	1
11	Antennas	Shure	UA864LO	2
12	Camera (2)	QSC	NC - 20x60	2
13	Wireless Presentation System	Bluestream	AMF41W	1
14	Digital Podium	Peoplelink	Deltaplus	1
15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)	1
16	Touch Panel	QSC	TSC-70-G3 + TSC-710t	1
17	AV line Network Switch	Netgear	NS10-125+	1
18	Ceiling Tile Dante Microphone	Sennheiser	SL MIC II	6
19	Indoor Video Wall - 145"	-	-	1
20	Reference Monitor	Sony	43" Display	1
21	21U rack	-	-	1

Existing AV Setup - LHC - 2,9,10 (72 Capacity)				
S. No	Description of Item	Make	Model	Qty
1	Ceiling Speakers	QSC	AC-C8T	8
2	Digital Power Amplifier	QSC	CX-Q 2K4	1
3	Dante License	QSC	-	1
4	Scripting License	QSC	-	1
5	UCI License	QSC	-	1
6	AV Bridging License	QSC	-	1
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58	1
8	Wireless Headworn Microphone	Shure	BLX4RIN/P31	1
9	Gooseneck Microphone	Shure	MX418	1
10	Antenna Distribution Box	Shure	UA844+SWB-IN	1
11	Antennas	Shure	UA864LO	2
12	Camera (2)	QSC	NC - 20x60	2
13	Wireless Presentation System	Bluestream	AMF41W	1
14	Digital Podium	Peoplelink	Deltaplus	1
15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)	1

16	Touch Panel	QSC	TSC-70-G3 + TSC-710t	1
17	AV line Network Switch	Netgear	NS10-125+	1
18	Indoor Video Wall - 145"	-	-	1
19	Reference Monitor - 43"	Sony	-	1
20	21U Rack	-	-	1

Existing AV Setup - LHC - 3,8,11,15 (120 Capacity)

S. No	Description of Item	Make	Model	Qty
1	Ceiling Speakers	QSC	AC-C8T	12
2	Digital Power Amplifier	QSC	CX-Q 2K4	1
3	Dante License	QSC	-	1
4	Scripting License	QSC	-	1
5	UCI License	QSC	-	1
6	AV Bridging License	QSC	-	1
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58	1
8	Wireless Headworn Microphone	Shure	BLX4RIN/P31	1
9	Gooseneck Microphone	Shure	MX418	1
10	Antenna Distribution Box	Shure	UA844+SWB-IN	1
11	Antennas	Shure	UA864LO	2
12	Camera (3)	QSC	NC - 20x60	3
13	Wireless Presentation System	Bluestream	AMF41W	1
14	Digital Podium	Peoplelink	Deltaplus	1

15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)	1
16	Touch Panel	QSC	TSC-70-G3 + TSC-710t	1
17	AV line Network Switch	Netgear	NS10-125+	1
18	Indoor Video Wall - 174"	-	-	1
19	Reference Monitor - 43"	Sony	-	1
20	21U Rack	-	-	1

Existing AV Setup - LHC - 4,7,12,14 (200 Capacity)

S. No	Description of Item	Make	Model	Qty
1	FOH Speakers	QSC	KW122	3
2	Stage Monitor	QSC	CP8	1
3	Scripting License	QSC	-	1
4	UCI License	QSC	-	1
5	Analogue AVoIP as Core	QSC	Core 110F	1
6	Wireless Handheld Microphone	Shure	BLX24RIN/SM58	1
7	Wireless Headworn Microphone	Shure	BLX4RIN/P31	1
8	Gooseneck Microphone	Shure	MX418	1
9	Antenna Distribution Box	Shure	UA844+SWB-IN	1
10	Antennas	Shure	UA864LO	2
11	Camera (3)	QSC	NC - 20x60	3
12	Wireless Presentation System	Bluestream	AMF41W	1
13	Digital Podium	Peoplelink	Deltaplus	1

14	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)	1
15	Touch Panel	QSC	TSC-70-G3 + TSC-710t	1
16	AV line Network Switch	Netgear	NS26-300+	1
17	Indoor Video Wall - 189"	-	-	1
18	Reference Monitor - 43"	Sony	-	1
19	21U Rack	-	-	1

Existing AV Setup - LHC - 6,13 (400 Capacity)				
S. No	Description of Item	Make	Model	Qty
1	FOH Speakers	QSC	KW122	3
2	Stage Monitor	QSC	CP8	1
3	Scripting License	QSC	-	1
4	UCI License	QSC	-	1
5	Analogue AVoIP as Core	QSC	Core 110F	1
6	Wireless Handheld Microphone	Sennheiser	EWD 835 Set	4
7	Wireless Headworn Microphone	Sennheiser	EWD ME3 Set	2
8	Gooseneck Microphone	Sennheiser	MEG 14 40 + MAT 133S	1
9	Antenna Distribution Box	Sennheiser	EWD ASA	1

10	Antennas	Sennheiser	ADP UHF	2
11	Wireless Presentation System	Bluestream	AMF41W	1
12	Digital Podium	Peoplelink	Deltaplus	1
13	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)	1
14	Touch Panel	QSC	TSC-70-G3 + TSC-710t	1
15	AV line Network Switch	Netgear	NS26-300+	1
16	Indoor Video Wall - 245"	-	-	1
17	Reference Monitor - 43"	Sony	-	1
18	21U Rack	-	-	1

Annexure A

Scope of Work - Setting up Hybrid Classrooms in the Lecture Hall Complex. (Supply, install, integrate and demonstrate a fully functional Hybrid Classroom)

1) Bill Of Quantity -

A) LHC - 1,2,3,4,7,8,9,10,11,12,14,15 with MTR Setup.				
SI No.	Description	Qty	UoM	
1	Display			
1.1	65" Interactive Display	12	No	
1.2	Heavy-duty Mobile Trolley for Interactive Display 65" to 86"	12	No	
2	UC solution -MTR			
2.1	Microsoft Teams Room (Kit) Device	12	No	
2.2	Control Processor	12	No	
2.3	8x8 HDMI Matrix Switcher	12	No	
2.4	4x 4 USB 3.2 Gen 1 Industrial Hub Switch	12	No	
2.5	HDBaseT HDMI Tx/Rx Set	12	No	
3	Cables & Accessories			
3.1	Cables, connectors and other miscellaneous items as per the user requirement at the time of installation (HDMI, LAN, Speaker cables, Audio Cables, electrical, etc..) As per the site requirement	12	Lumpsum	
B) LHC - 06, 13 with Camera and MTR Setup.				
SI No.	Description	Qty	UoM	
1	Display			
1.1	65" Interactive Display	2	No	
1.2	Heavy-duty Mobile Trolley for Interactive Display 65" to 86"	2	No	
2	UC solution -MTR			
2.1	AI Auto-Tracking 30x Zoom, PTZ Camera,4K 60 Dual output, AI-powered motion tracking, HDMI, Ethernet, 3G-SDI, USB output	4	No	

2.2	Ceiling mount kit / Wall bracket	4	No	
2.3	Microsoft Teams Room (Kit) Device	2	No	
2.4	Control Processor	2	No	
2.5	HDMI to USB Capture	4	No	
2.6	8x8 HDMI Matrix Switcher	2	No	
2.7	4x 4 USB 3.2 Gen 1 Industrial Hub Switch	2	No	
2.8	HDBaseT HDMI Tx/Rx Set	6	No	
3	Cables & Accessories			
3.1	Cables, connectors and other miscellaneous items as per the user requirement at the time of installation (HDMI, LAN, Speaker cables, Audio Cables & electrical, etc.) As per the site requirement	2	Lumpsum	
4	Services for A+B			
4.1	Testing, Installation & Commissioning Charges	2	No	
4.2	Programming Charges	2	No	

IMPORTANT: THE BIDDERS SHOULD NOT QUOTE FOR ANY PRODUCT WHICH IS EITHER END OF SALE OR END OF LIFE IN THE +/- 6 MONTHS. THE MAINTENANCE DATE IN TERMS OF ANY FIRMWARE, SOFTWARE UPDATES, SECURITY PATCHES, OS COMPATIBILITY, AND SPARES ETC SHOULD BE AVAILABLE FOR THE PERIOD OF 7 YEARS FROM THE DATE OF BIDDING.

A CERTIFICATE/UNDERTAKING TO THIS EFFECT MUST BE PRODUCED FROM THE OEM.

2) For Information of the Bidders: Existing AV Set Up In The LHC

Existing AV Setup - LHC - 1 (72 Capacity)			
S.No	Description of Item	Make	Model
1	Ceiling Speakers	QSC	AC-C8T
2	Digital Power Amplifier	QSC	CX-Q 2K4
3	Dante License	QSC	-
4	Scripting License	QSC	-
5	UCI License	QSC	-
6	AV Bridging License	QSC	-
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58
8	Wireless Headworn Microphone	Shure	BLX4RIN/P31
9	Gooseneck Microphone	Shure	MX418
10	Antenna Distribution Box	Shure	UA844+SWB-IN
11	Antennas	Shure	UA864LO
12	Camera (2)	QSC	NC - 20x60
13	Wireless Presentation System	Bluestream	AMF41W
14	Digital Podium	Peoplelink	Deltaplus

15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)
16	Touch Panel	QSC	TSC-70-G3 + TSC-710t
17	AV line Network Switch	Netgear	NS10-125+
18	Ceiling Tile Dante Microphone	Sennheiser	SL MIC II
19	Indoor Video Wall - 145"	-	-
20	Reference Monitor	Sony	43" Display
21	21U rack	-	-

Existing AV Setup - LHC - 2,9,10 (72 Capacity)

S.No	Description of Item	Make	Model
1	Ceiling Speakers	QSC	AC-C8T
2	Digitla Power Amplifier	QSC	CX-Q 2K4
3	Dante License	QSC	-
4	Scripting License	QSC	-
5	UCI License	QSC	-
6	AV Bridging License	QSC	-
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58
8	Wireless Headworn Microphone	Shure	BLX4RIN/P31
9	Gooseneck Microphone	Shure	MX418
10	Antenna Distribution Box	Shure	UA844+SWB-IN
11	Antennas	Shure	UA864LO
12	Camera (2)	QSC	NC - 20x60
13	Wireless Presentation System	Bluestream	AMF41W
14	Digital Podium	Peoplelink	Deltaplus
15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)
16	Touch Panel	QSC	TSC-70-G3 + TSC-710t
17	AV line Network Switch	Netgear	NS10-125+
18	Indoor Video Wall - 145"	-	-
19	Reference Monitor - 43"	Sony	-
20	21U Rack	-	-

Existing AV Setup - LHC - 3,8,11,15 (120 Capacity)

S.No	Description of Item	Make	Model
1	Ceiling Speakers	QSC	AC-C8T
2	Digitla Power Amplifier	QSC	CX-Q 2K4
3	Dante License	QSC	-
4	Scripting License	QSC	-
5	UCI License	QSC	-
6	AV Bridging License	QSC	-
7	Wireless Handheld Microphone	Shure	BLX24RIN/SM58

8	Wireless Headworn Microphone	Shure	BLX4RIN/P31
9	Gooseneck Microphone	Shure	MX418
10	Antenna Distribution Box	Shure	UA844+SWB-IN
11	Antennas	Shure	UA864LO
12	Camera (3)	QSC	NC - 20x60
13	Wireless Presentation System	Bluestream	AMF41W
14	Digital Podium	Peoplelink	Deltaplus
15	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)
16	Touch Panel	QSC	TSC-70-G3 + TSC-710t
17	AV line Network Switch	Netgear	NS10-125+
18	Indoor Video Wall - 174"	-	-
19	Reference Monitor - 43"	Sony	-
20	21U Rack	-	-

Existing AV Setup - LHC - 4,7,12,14 (200 Capacity)

S.No	Description of Item	Make	Model
1	FOH Speakers	QSC	KW122
2	Stage Monitor	QSC	CP8
3	Scripting License	QSC	-
4	UCI License	QSC	-
5	Analogue AVoIP as Core	QSC	Core 110F
6	Wireless Handheld Microphone	Shure	BLX24RIN/SM58
7	Wireless Headworn Microphone	Shure	BLX4RIN/P31
8	Gooseneck Microphone	Shure	MX418
9	Antenna Distribution Box	Shure	UA844+SWB-IN
10	Antennas	Shure	UA864LO
11	Camera (3)	QSC	NC - 20x60
12	Wireless Presentation System	Bluestream	AMF41W
13	Digital Podium	Peoplelink	Deltaplus
14	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)
15	Touch Panel	QSC	TSC-70-G3 + TSC-710t
16	AV line Network Switch	Netgear	NS26-300+
17	Indoor Video Wall - 189"	-	-
18	Reference Monitor - 43"	Sony	-
19	21U Rack	-	-

Existing AV Setup - LHC - 6,13 (400 Capacity)

S.No	Description of Item	Make	Model
1	FOH Speakers	QSC	KW122
2	Stage Monitor	QSC	CP8
3	Scripting License	QSC	-

4	UCI License	QSC	-
5	Analogue AVoIP as Core	QSC	Core 110F
6	Wireless Handheld Microphone	Sennheiser	EWD 835 Set
7	Wireless Headworn Microphone	Sennheiser	EWD ME3 Set
8	Gooseneck Microphone	Sennheiser	MEG 14 40 + MAT 133S
9	Antenna Distribution Box	Sennheiser	EWD ASA
10	Antennas	Sennheiser	ADP UHF
11	Wireless Presentation System	Bluestream	AMF41W
12	Digital Podium	Peoplelink	Deltaplus
13	DSP with HDMI 3x2 Switcher and AVoIP	QSC	NV-32H (Core Capable)
14	Touch Panel	QSC	TSC-70-G3 + TSC-710t
15	AV line Network Switch	Netgear	NS26-300+
16	Indoor Video Wall - 245"	-	-
17	Reference Monitor - 43"	Sony	-
18	21U Rack	-	-

**** The Bidders have to check and ensure the compatibility of the items quoted with the existing set-up.**

3) Scope of work under Integration of the System, not restricted to, for fully functional hybrid classroom.

S.no	Description
1	Proper Integration of the Tender BoQ with the Existing infrastructure in the LHCs. The items being quoted should be compatible with the existing setup in the classrooms.
2	Annotation on the interactive panel should be possible using a PC/Laptop (One Note or any other writing applications), both within the MTR environment and independently without MTR.
3	The solution should support integration of all types of laptops, irrespective of the available connectivity options, with the MTR and other AV devices.
4	BYOD hybrid meetings (Meet, Zoom and Webex) should be supported without requiring any hardware changes.
6	The interactive display should be configured with the quoted control processor for input/output switching, if possible
7	Camera installation should include the required cable lengths and all necessary accessories to support both MTR meetings and BYOD meetings, with no hardware changes
8	Camera control through the control processor should support mandatory PTZ (Pan, Tilt, and Zoom) and tracking on/off functionality.
9	In case of MTR failure or during BYOD meetings, camera switching between the presenter and the audience cameras should be made possible

10	The control processor should be capable of handling and controlling all integrated AV devices with the provided touch panel for room controls
11	Programming and customization of the room controls touch panel should be carried out as per the user's operational requirements and preferences.
12	Possibility of remote participant, Faculty and in-room participant visible in the MTR video call
13	Possibility of using the Same touch panel of QSC for MTR controls, as well as the Room controls (Existing)
14	Any additional user requirements during installation by the successful bidder should be reviewed, evaluated, and suitable solutions or recommendations should be provided during installation.
15	All additional cabling, casing & capping, tagging, and electrical requirements
16	All equipment that can be fitted within the available space of the existing digital podium shall be installed inside the podium. Equipment that cannot be accommodated shall be installed in the rack (21U).

4) Technical Specifications

Parameters	Specifications
INTERACTIVE DISPLAY	
Screen Size (Inch)	65" or higher
Panel Technology	IPS
Aspect Ratio	16:09
Native Resolution	3840x2160 (UHD)
Refresh Rate	60Hz or better
Brightness	440nit or better
Dynamic CR	5000:1 or better
Color Gamut	NTSC 72% or better
Viewing Angle (H x V)	178°(H/V)
Colour Depth (Number of Colours)	16.7 Million Colours
Response Time	8ms
Surface Treatment (Haze)	25% or more
Operation Hours (Hours/Day)	16/07-
Sound	
Speaker (Built-in)	15W x 2 or better
Touch Feature	

Available Object Size for Touch	Ø2 mm ↑
Response Time	≤5ms
Accuracy (Typ.)	±1mm
Interface	USB2.0
Protection Glass Thickness	3T(Anti-Glare) or better
Protection Glass Transmission	88% or better
Operating System Support	Windows 7/8/10/Linux/Mac/Android (Linux/Mac Support one point touch)
Multi Touch Point	Max 40 points (Windows), Max 32 points (Android)
Dedicated Feature	
CPU	Quad core A55 or better
GPU	Mali G52MP2 or better
Memory(RAM)	Min - 8GB
Storage	Min - 64GB
Wi-Fi	802.11a/b/g/n/ac/ax (WiFi 6)
LAN	Gigabit LAN
Bluetooth	Bluetooth 5.0
OS ver. (Android)	Android 13 or above
Connectivity	
Input	HDMI (3, HDCP 2.2),
	RGB (VGA), Audio In, RS-232C In, RJ45 (LAN)
USB	USB3.0 Type A(4), USB2.0 Type A(1), USB Type-C(1, USB-PD, DP-Alt)
output	HDMI Out, Audio Out (1, Optical 1 (SPDIF)), Touch USB (2), RJ45 (LAN)
Hardware Feature	
Hardware Feature	Internal Memory 64GB, Wi-Fi/BT (built-in),

	Auto Brightness Sensor, Power Indicator
Software Feature	
Software Feature	Background Image (Booting Logo Image), Multi-screen (PIP / PBP, External Source), Screen Share, Power (Smart Energy Saving, Wake on LAN), Should have the auto save feature of the notes in case of power loss Ability to change the HDMI output resolution to any resolution (4k, 1080 etc)
Environmental Conditions	
Operation Temperature	0 °C to 40 °C
Operation Humidity	10% to 90%
Power	
Power Supply	AC 100-240V~, 50/60Hz
Power Type	Built-In Power
Typ.	220W or lesser
Max.	420W or lesser
BTU (British Thermal Unit)	760 BTU/Hr(Typ.), 1450 BTU/Hr(Max) or lesser
DPM	≤0.5W
Power off	≤0.5W
Certifications	
Safety	CB / NRTL
EMC	FCC Class "A" / CE / KC
ERP / Energy Star	Yes/Yes
OPS Compatibility	
OPS Type compatible	Yes (Slot)
OPS Power Built-in	Yes
Remote Management Software	Display should support RMS features, and this RMS should be from the same OEM vendor OR through compatible third-party solutions without any additional/hardware changes.

MOBILE TROLLEY for INTERACTIVE DISPLAY	Material Power Coated MS Steel
	suitable for display panel up to 120 Kgs - with max vesa 800 x 600 mm - suitable for 47 - 86 " displays and interactive panels
	With 1 shelf and a camera shelf
	Adjustable of Height setting
	The cart has a big base at bottom which can be used for keeping computer or any other equipment's
	Cable management
	Available in Black and white colour
	With sleek and small packing, it is easy to carry and transport the cart
	The cart is simple to assemble and best suitable for interactive panels
	Castor wheels : 3" M12

Video Conference Camera	AI-based 4K @ 60fps Presenter PTZ Tracking Camera with Dual Camera-
	One PTZ Camera for Presenter Tracking and a second fixed lens Panoramic Camera.
	PTZ Presenter Camera should support min 30X Zoom and 8x Digital Zoom with a Panning range of +170 deg to - 170 deg and a Tilt Range of -30 to +90 Degrees
	camera should support simultaneous outputs through HDMI, 3G-SDI, USB 3.0 and IP with 1x Audio In and can be controlled via RS232 and IP.
	Should support multiple video streams with PIP. Tracking Camera should support Everywhere Tracking, Partition Tracking (Min 3 Tracking Modes needs to be available or above), Auto Framing & Gesture Control
	Should support PoE+ and Virtual USB Driver.
	Camera can be controlled and managed through centralised software on network and Control processor
	model should be BIS, CE, FCC, Clickshare & RoHS Certified with Test Lab Reports.
System Design	Dual-Camera Architecture with an independent PTZ tracking head and a fixed wide-angle panoramic camera.
Main PTZ Camera	Image Sensor; 1/1.8" Min 8.48 Megapixel CMOS

	Video Formats: 4K (2160p) at 59.94 / 50 / 29.97 / 25 fps 1080p / 720p up to 59.94 fps; 1080i up to 59.94 fps
	Optical Zoom: Min. 30x Magnification
	Digital Zoom: Min. 8x Magnification
	Lens Focal Length: 7.1 mm to 213 mm
	Field of View (FoV): Horizontal: 59.2° / Vertical: 33.3° / Diagonal: 67.9°
	Lens Aperture: F1.6 ~ F5.4
	Low-Light Sensitivity: Minimum illumination 0.5 Lux (F1.6, AGC ON)
Panoramic Camera	Image Sensor: 1/2.8" 8.6 Megapixel CMOS
	Video Formats: 4K (2160p) / 1080p up to 60 / 50 fps
	Focal Length / Aperture: 3 mm fixed / F2.0
	Field of View (FoV): Horizontal: 85.1°
PTZ Mechanics	Pan Range & Speed: -170° to +170° total sweep / 0.1° to 100° per second
	Tilt Range & Speed: -30° to +90° total sweep / 0.1° to 60° per second
	Presets: Minimum 256 position profiles
Image Controls	Processing Features: Wide Dynamic Range (WDR), 3D Noise Reduction (3D NR), Image Flip, Auto/Manual White Balance, Exposure, and Gain Control
Simultaneous Interfaces	Video Outputs: HDMI 2.0 (Up to 2160p60) 3G-SDI (Up to 1080p60) Ethernet / IP LAN (Dual Stream up to 2160p60) USB Type-B (Up to 2160p30)
IP Networking	Streaming Formats: H.264 / H.265 (HEVC) compression
	Network Protocols: RTSP, RTMP, RTMPS, SRT supported natively
Integration	Control Protocols: VISCA, ONVIF, and standard UVC / UAC drivers via USB
	Control Interfaces: RS-232, Ethernet (IP Control), and IR Remote
	Audio Interface: 3.5mm Line In with AAC / PCM audio embedding
Physical & Power	Power Delivery: PoE+ (IEEE 802.3at) or local 12V DC input

	Power Consumption: PoE: 26W / DC In: 25W maximum
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Ceiling Mount kit for the Video conference Camera	Standard Material: Steel Surface Finish: Powder Coating
	Color: Matte Black/ Matte White
	Weight Capacity: 1kg upto 5kg
	Mounting Extension Range: 3ft x 6ft
	Tilt Range: +20°~-20°
	Swivel Range: +8°~-8°
	Rotation: +180°~-180°
	Adjust heights setting
	Universal Camera Plate can fix all brand & type cameras
	Cable Management: Yes

Integrated kit designed for native Microsoft Teams Rooms (MTR)	
Hardware integrator kit designed for native Microsoft Teams Rooms (MTR) environments	Enterprise-grade hardware integrator kit designed for native Microsoft Teams Rooms (MTR) environments. It includes a wall-mounted room control touch interface, a heavy-duty display mounting bracket assembly with a dedicated computing core, and an advanced presentation transmitter supporting Bring Your Own Device (BYOD) multimedia sharing - 1. with Type C port (supporting 60-watt charging, Content, Audio and Camera Peripherals Access), 2. HDMI + USB for (supporting, Content, Audio and Camera Peripherals Access)
System Profile	Collaboration Protocol: Native Microsoft Teams Rooms client with Skype for Business software capability and Option to Convert Entire Kit to Zoom Rooms with any additional Change of Hardware

	Should be able to convert from native Microsoft Teams room to native Zoom room system on demand by the end user from the touch panel. With BYOD Functionality with TYPE C and HDMI + USB provisions
Central Computing Unit	Processor Platform: Core processor core hosted on an industrial Mini PC architecture or native compute from AV manufacturer with Future Ready like Edge AI with NPUs on board
	Operating System: Embedded Windows® 10 or higher IoT Edition OS, 100/1000 Mbps Ethernet connectivity, minimum two displays output and 10" Wall-mounted touch screen.
	Network Connectivity: Auto-negotiating 100/1000 Mbps Gigabit Ethernet RJ-45 interface.
	Codec should have 2 x output to be connected to 2 displays, Input for sharing wired content during the call, USB 2.0 and 3.0 supported multiple ports for connecting USB camera on site and accessories connectivity like DSP, speakerphone etc.
	Video Output Resolution: Native 1080p transmission bandwidth per display pipe should support 4k.
Wall Mount Touch Control Interface	Display Size & Tech 10.1 Inch (257 mm) active matrix TFT color LCD screen.
	Touch Technology: Continuous Capacitive Multi-Touch overlay surface.
	Native Resolution: High-definition 1920 x 1200 Pixels.
	Power Delivery : PoE+ / IEEE 802.3at Type 2 compliant Powered Device (PD). Supports discrete power injectors where LAN-based PoE is unavailable.
	Mounting Integration: Low-profile wall mounting designed to fix directly over a standard 2-gang or 3-gang US electrical box (or 2-gang UK/European backbox). Includes built-in anti-theft security latching mechanisms.
BYOD Content Sharing & Signal Transmission	Content Transmitter: Included discrete under-table or multi-surface UC Presentation Transmitter interface with BYOD USB (Audio and Video inputs kit)
	Local Input Routing: Physical HDMI In and DisplayPort 1.2 via USB Type-C native ingestion ports.
	Downstream Connectivity: Long-distance structured HDMI over CAT5/6 signal translation back to the primary display bracket engine.

	Security Protocols: High-bandwidth Digital Content Protection compliance across HDCP 1.4 and HDCP 2.2.
	Laptop Power Delivery: Integrated active charging up to 60W Smart Power Delivery via the host USB Type-C interface.
Management & Ecosystem Integration	Remote Monitoring Client: Centralized management via cloud provisioning, enabling cloud-based task automation, device discovery, firmware deployment, and automated asset alerting
	Control Extensions: Native software bridging hookups for external AV environmental control processors (for localized lighting, motorized shades, and HVAC automation directly from the console UI).
Physical Enclosures & Mounting Hardware	Primary Integration Frame: Heavy-duty pre-assembled metal mounting bracket designed for hidden placement directly behind wall-mounted displays or pinned over VESA-compliant structural frames (100mm, 200mm, or 300mm spacing arrays). Should be mounted into the existing digital podium
	Structural Dimensions: Main Bracket: Approx. 381 x 368 x 48 mm (H x W x D max).

CONTROL SYSTEM

Architecture:	Processor & Memory: 4-Series control engine; real-time, pre-emptive multi-threaded/multitasking kernel.
	Memory Capacity: 1 GB SDRAM and 8 GB Flash memory built in.
	External Storage: Supports external USB mass storage devices up to 1 TB via USB OTG.
	File System: Transaction-Safe Extended FAT (Ex FAT) file system.
Control Capabilities	Program Execution out-of-the-box support for a single program; scalable up to 10 simultaneous programs running concurrently (via modular license).
	Software Platform: Native AV Framework configuration-based application engine.
Physical I/O Interfaces	COM Ports: 1 x 3-pin 3.5 mm terminal block; Bidirectional RS-232 / RS-422 / RS-485 port up to 115.2k baud.

	IR / Serial Ports: 2 x 4-pin 3.5 mm terminal blocks; Comprises 2 x IR output ports up to 1.2 MHz (or 1-way serial TTL/RS-232, 0–5V).
	Digital Inputs: 1 x 3-pin 3.5 mm terminal block; 2 x Digital Inputs (0–24 VDC rated, 2.2k Ω pull-up to 5V).
	Relays: 1 x 4-pin 3.5 mm terminal block; 2 x Normally Open, Isolated Relays (Rated 1 A, 30 VAC/VDC, MOV arc suppression).
	Device Network Port: 1 x 3-pin 3.5 mm terminal block; Master Port (Provides master data communication only, no power output).
	USB Interface: 1 x USB Type Micro-AB female; front panel USB OTG port for computer console or mass storage.
Network & Security	Ethernet Port: 1 x 8-pin RJ-45 female; 100BASE-T Ethernet client.
	Network Protocol: IPv4 or IPv6 ready; TCP/IP, UDP/IP, CIP, DHCP, HTTPS web server, SMTP email client.
	Enterprise Security: FIPS 140-2 compliant encryption, SSL, TLS, SSH, SFTP, IEEE 802.1X, Active Directory authentication.
	IT Remote Admin: SNMP v3 network management protocol native client.
	Building Automation: IP network support (up to 50 objects free, expandable up to 500 via license).
Physical & Electrical	Power Source: Power over Ethernet (PoE); IEEE 802.3at Type 1 (802.3af compatible) Class 0 Powered Device (PD).
	Power Consumption: 6.5 Watts maximum.
	Housing Form Factor: IFE (Integrator Friendly Enclosure) micro stackable chassis.
	Mounting Integration: Direct flat surface mounting bracket with an integrated DIN rail clip.
	Third-Party User Interfaces: The core control architecture must support remote UI interfaces across Windows PC, macOS (via XPanel), iOS (iPhone/iPad), and Android environments. It should support all the AV devices quoted as per the BOM.

MATRIX SWITCHER

Routing Matrix	Configuration: True 8x8 Crosspoint Matrix Switcher; routes any of the 8 inputs to any of the 8 outputs independently.
Video Performance	Input Signal Compatibility: HDMI with HDR10, HDR10+, and Dolby Vision; backward compatible with DVI and Dual-Mode DisplayPort (via adapters).
	Output Signal Compatibility: HDMI with HDR10, HDR10+, Dolby Vision, and DVI.
	Max Resolution & Frame Rate: Up to 4096 x 2160 DCI 4K or 3840 x 2160 4K UHD at 60 Hz.
	Chroma Subsampling: 4:4:4 extraction up to 4K60.
	Color Depth & Data Rate: Minimum 24-bit deep color at 4K60 (4:4:4) / Full 18 Gbps aggregative bandwidth per video lane
	HDCP Compliance: Selectable HDCP 2.3, HDCP 2.2, HDCP 1.4, or completely disabled mode.
Audio Processing	Input Formats: HDMI digital stream audio including Dolby Digital®, Dolby TrueHD, DTS, DTS-HD, and PCM up to 8 channels.
	Audio De-embedding: Hardware-isolated 2-channel LPCM audio de-embedding from any select input pipeline.
	Analog Outputs: 2 x 5-pin 3.5mm mini-terminal blocks supporting balanced or unbalanced stereo lines.
	Volume Control : Independent volume attenuation and mute adjustments across all discrete HDMI and auxiliary analog endpoints.
	Audio Conversion: High-definition 24-bit 48 kHz Digital-to-Analog conversion (DAC).
Management & Routing Automation	Built-in Engine Logic : Native support for Auto-routing and priority-based sequence routing without external hardware dependencies.
	EDID Tooling : Comprehensive built-in EDID (Extended Display Identification Data) management engine with manual overriding/cloning.
	Display Automation Control : Integrated Display Control using consumer electronics control (CEC signals) via HDMI, operating independent of a core system controller should be able to control through control processor

Network & Enterprise Security	Local Configuration Interface : Embedded HTML5 Web Interface for system parameters, checking I/O status, and routing setups via a browser.
	Local Area Networking: 1 x RJ-45 female; 10/100/1000 Base-T Gigabit Ethernet terminal port.
	Central Management Support: Direct client compatibility with the cloud monitoring framework , supporting remote provisioning and telemetry logging.
	Ecosystem Control Link: Direct network integration hooks for vendor native control systems. Should be able to control the switcher with IP based through the control processor.
	Automation Framework: Native operational compatibility with .AV Framework™ configuration profiles.
	Security Protocols: 802.1X network access protection, Active Directory® credential authentication, TLS, and HTTPS data encryption.
Physical & Power	Mounting Form Factor: 1 RU (Rack Unit) space profiling inside a standard 19-inch EIA electronics equipment cabinet.
	Front Panel Interface: Status indicators for power, setup, system operations, and active input/output signal mappings and should fit in to the people link digital podium
	External Power Block : 100-240V AC (~50/60 Hz) universal wall line adapter outputting 24V DC / 2.5A to the unit.
	Operating Draw Profile: Active operational threshold rated up to 29 Watts maximum.

**Professional grade 4K
HDMI to USB 3.0 video
and audio capture card.**

Device Type	HDMI to USB 3.0 Video & Audio Capture Card with integrated HDMI loop-through passthrough.
Video Processing	HDMI 2.0 supporting aggregate bandwidth up to 18 Gbps.
	Native HDCP 2.2 compliance, backward compatible with earlier HDCP iterations.
	Max Input Resolution: Up to 4K @ 60Hz with 4:4:4 chroma subsampling

	Max Loop Output: Up to 4K @ 60Hz with 4:4:4 chroma subsampling.
	USB Capture Output: USB 3.0 with transmission data rates up to 300~350 MB/s.
	Capture Resolutions: 4K (3840 x 2160) @ 30Hz maximum, OR 1080p @ 120Hz high-frame-rate recording.
	Color Space Formats: YUV output color space; supports YUY2, RGB32, and NV12 capture formats.
Audio Processing	Independent analog Line In and Line Out paths.
	Routing Capabilities: Support for LINE mix input (mixing external audio into the video stream).
	Digital Audio Format: HDMI Digital Stream: PCM 2.0 at 48KHz.
	Analog Audio Formats: Microphone / Headphone Jack Signals: PCM 2.0.
Hardware I/O	Inputs: 1 x HDMI Type-A Female Input , 1 x 3.5mm TRS Line In Mini-Jack
	Outputs: 1 x USB Type-B Record Capture Port, 1 x HDMI Type-A Loop Output, 1 x 3.5mm TRS Line Out Mini-Jack
Compatibility & Drivers	Driverless, true Plug-and-Play operation using native operating system layers.
	Unified Video Class (UVC) and Unified Audio Class (UAC) compliant.
	Windows 7 / 8 / 8.1 / 10 / 11, macOS (10.12 or above), and LinuxOS.
	Tested and verified with native platforms including Zoom, Skype, Microsoft Teams, OBS Studio, Pot Player, VLC, vMix, and Wire cast.
Physical & Electrical	Heavy-duty Steel Chassis design.
	Bus-powered via host USB interface connection (no external AC transformer needed).

USB Switcher

Device Type	4x4 USB 3.2 Gen 1 Industrial Peripheral Sharing Switch.
Host Connections	4 x USB Type-B Female Ports (Blue).
Device / Peripheral Ports	4 x USB Type-A Female Ports (Blue).

Maximum Bandwidth	Native USB 3.2 Gen 1 specification supporting data transfer speeds up to 5 Gbps (backward compatible with USB 2.0 and USB 1.1).
Port Selection & Control : Manual Control	Onboard mechanical pushbutton for local manual switching.
Hardware Remote	Dedicated 1.8-meter Remote Port Selector expansion line.
Serial Automation Control	Built-in RS-422 / RS-485 serial link via an integrated 5-pin terminal block interface to receive serial command strings from external room controllers (e.g., Crestron, AMX, Extron).
Status Indicators	4 x Green LEDs representing active Computer/Port Focus. 1 x Orange LED for active RS-422 line. 1 x Green LED for active RS-485 line.
Dual Power Ingestion	Dual-mode topology supporting industrial power or local adapter routing.
Industrial Terminal	1 x 2-pin Terminal Plug supporting wide-range DC 9V to 24V input.
DC Auxiliary Port	1 x 12V DC Jack Female (Black) for standalone adapter deployment.
Power Protection	Integrated Over-Current Protection across all downstream ports.
Charging Standard	Compliant with USB Battery Charging (BC 1.2) parameters for mobile device top-ups.
Power Consumption	DC 12V: 0.376W (Typical with no external loading). DC 24V: 0.48W (Typical with no external loading).
Compatibility & Drivers : Host OS Support	True Driverless, Plug-and-Play operation across Windows, macOS, and LinuxOS systems.
Hot Plugging	Fully supports active Hot-Plugging without signal interruption or host system rebooting requirements.
Cable Locking Support	Native mechanical support for aftermarket USB M2 screw-locking cables to prevent accidental physical disconnects.
Enclosure Build	Industrial-grade, heavy-duty Metal Chassis with integrated wall-mountable/surface-mountable framing brackets.
Environmental Limits	Operating Temperature: 0°C to 50°C. Storage Temperature: -20°C to 60°C. Relative Humidity: 0% to 80% RH, non-condensing.

HDMI TX/RX extender SET	Specification Required / Complied
System Architecture : Device Type	Point-to-Point HDMI 18G & IR Extender Kit (Transmitter & Receiver pair).
Signal Transmission	Extension over a Single Solid-Core Cat.5e / Cat.6 / Cat.7 structured infrastructure cable.
Video Performance : AV Interface Standard	HDMI 2.0 compliant.
Video Bandwidth	Full 18 Gbps aggregative payload bandwidth.
Maximum Resolution	Up to 3840 x 2160 @ 60Hz (4K UHD) with full 4:4:4 8-bit chroma subsampling.
Dynamic Range	Native High Dynamic Range (HDR) passthrough supporting HDR10 and HLG profiles.
HDCP Compliance	Native HDCP 2.2 copy-protection verification passthrough.
3D Video Support	Supports structural 1080p 3D video encoding streams.
Transmission Range: Over Cat.6 / Cat.7 Cable	Max distance up to 50 metres (164.04 ft) at full 4K @ 60Hz 4:4:4 resolution.
Over Cat.5e Cable	Max distance up to 30 metres (98.42 ft) at 4K @ 60Hz 4:4:4, or 50 metres at 1080p @ 60Hz.
Audio Processing : Multi-Channel Audio	Structural passthrough up to 7.1 channel 24-bit 192kHz digital audio.
Supported Formats	Supports uncompressed/lossless arrays: LPCM, Dolby Atmos, Dolby TrueHD, DTS-HD Master Audio, DTS:X, and DSD.
Control & EDID : Local Display Monitoring	Integrated HDMI Loop-Through Output on the Transmitter for concurrent local preview or display split zoning.
EDID Tooling	Manual EDID DIP Switch to explicitly lock selection between the local (TX-attached) display and remote (RX-attached) display profiles.
Control Extension	Bidirectional IR Pass-Through supporting carrier frequencies between 20 kHz and 60 kHz.
Physical I/O - TX : Input Ports	1 x HDMI Type-A Female (19-Pin) 1 x Micro-USB Female (Firmware / Support)
Output Ports	1 x HDMI Type-A Female (Local Loop Out) 1 x RJ-45 Female (Line Link Output) 1 x 3.5mm IR Output (Female)
Power Ingestion	1 x 12V DC Port (with secure locking thread)
	1 x RJ-45 Female (Line Link Input)

Physical I/O - RX : Input Ports	1 x 3.5mm IR Input (Female) 1 x Micro-USB Female (Firmware / Support)
Output Ports	1 x HDMI Type-A Female (To Display Interface)
Power over Cable	Dedicated PoC Topology; eVntire TX/RX line requires only one single power source hooked to the TX block.
Power Ingestion Ratings	12V DC / 1A external universal input system.
Housing Material	Heavy-duty Metal Chassis build.
Certifications	Fully certified across CE, UKCA, FCC, RoHS, and REACH frameworks.

Note on Technical Specifications: The Technical Specifications specified above in this tender document are the minimum requirements for Technical Qualification. The bidders may quote for the minimum or higher configuration /specifications. However, the Bid will be awarded to the Technically Qualified L1 Bidder only.

Technical Document – The Bidders are mandatorily required to submit the technical documents, brochures/datasheets/ supporting documents, etc., in the technical bid as proof of technical compliance. The failure to do so will result in the disqualification.

Certifications: For the products manufactured in India, equivalent Indian Certifications are required to be submitted.

EPR Registration through the Central Pollution Control Board (CPCB) for the Interactive Panel is mandatory.

Mandatory Certificates/Documents

i) Interactive Display -
a) BIS CRS Registration
b) EPR Registration through the Central Pollution Control Board (CPCB) for the Interactive Panel is mandatory, or any equivalent certificate with related to E-Waste issued by the Pollution Control Board.

ii) PTZ Camera

- RF test reports from accredited labs are required.
- Compliance with IS 13252 (Part 1) or IEC 62368-1 safety standards.
- The external power adapter must have BIS registration.
- If the PTZ camera has:
 - Wi-Fi (2.4 GHz / 5 GHz)
 - Bluetooth
 - Zigbee
 - RF Remote Control

Then, WPC ETA approval from the Wireless Planning & Coordination Wing is mandatory.

EPR Registration through the Central Pollution Control Board (CPCB) for electronic equipment, if applicable for the quoted products/brands

5) Qualification/Eligibility Criteria/Past Experience

1) Local Service Support of the Integrator in Hyderabad/ or Service Support within 48 hours. Standby Unit to be provided if the resolution is delayed beyond 48 hours.

2) Average Annual Turnover of the Integrator/Bidder for the past 3 years should be a minimum of Rs. 2 Crore

Experience

- One similar work of Rs. 2 Cr, or
- Two similar works of Rs. 1.25 Cr, or
- Three similar works of Rs 1Cr during the preceding 3 years,

OR

- Combined Order value for similar orders for Rs. 1 cr. for educational Institutes/Govt Bodies. during the last 2 financial years (2024-25 & 2025-26)

(Similar order/work means setting up of Hybrid Classrooms/ Large Audio Video Set up in educational Institutes/Govt. Bodies/ Corporates)

6) Technical Demonstration:

The Institute may, as part of the technical evaluation process, invite only those bidders who are found technically responsive based on the documentary evaluation to conduct a Technical Demonstration of the offered Hybrid Classroom solution.

The demonstration shall be conducted at the designated site (Lecture Hall Complex – IIT Hyd) by integrating the offered solution with the existing infrastructure and demonstrating a fully functional hybrid classroom, and shall be evaluated against the functional and technical parameters specified in this tender.

Failure to successfully demonstrate may result in technical rejection of the bid. Bidders shall be given a minimum notice period of 7 working days for presentation. All costs related to the demonstration shall be borne by the bidder.

The decision of the institute in this regard will be final and binding.

Note: The Interactive display of the Institute will be provided for use in a technical presentation (however, the bidder, if required, may bring their own). Other items need to be bought by the bidder.

7) **Site Visit** - Bidders are encouraged to visit and examine the site at the Lecture Hall Complex- IIT Hyd) and obtain for themselves, at their own responsibility and cost, all information that may be necessary for preparing the technical bid/technical demonstration. No additional claim arising out of non-familiarity with the site conditions shall be entertained at a later stage. Failure to visit the site shall not relieve the successful bidder from any obligation under the contract.

- 8) **Installation Services** – The successful Bidder should supply, install, integrate and demonstrate a fully functional Hybrid Classroom. During the installation must ensure that no loose wires, cables and accessories are left exposed.
- 9) **On-Site Support & Training** – A qualified bidder has to provide an on-site technician for support for a period of six months during which he will also train IITH staff.
- 10) Warranty should be 3 years for all quoted items. (The Institute reserves the right to go with CAMC. The CAMC in terms of percentage should be specified in the technical bid Annexure-‘O’)
- 11) Pre-bid meeting will be held in hybrid mode on the 7th day after publishing of the bid. (If the 7th day is a holiday, the next working day will be considered.)
- Meeting link: <https://meet.google.com/cmf-bxfg-xiu>

IMPORTANT : THE BIDDERS SHOULD NOT QUOTE FOR ANY PRODUCT WHICH IS EITHER END OF SALE OR END OF LIFE IN THE +/- 6 MONTHS. A CERTIFICATE TO THIS EFFECT MUST BE PRODUCED FROM THE OEM.

For any technical query related to enquiry, you may contact

Prof. Ashok Kumar Pandey, Dean Academics, Email: dean.acad@iith.ac.in,
ashok@mae.iith.ac.in,

Mr. Suresh Nair, Senior Assistant Registrar, Academics, Email: suresh.nair@admin.iith.ac.in

For Commercial query:

Mr. M Venkatesh – Senior Assistant Registrar, Email: ar.purchase@iith.ac.in

Mr. Ramesh Kumar - Assistant Registrar Email: ar.stores@iith.ac.in

Ms. D Chanchala Devi– Joint Registrar, Email: hos.snp@iith.ac.in

With CC: office.stores@iith.ac.in

TERMS AND CONDITIONS

1. **Delivery period:** Material should be delivered and installed within **1 month** from the date of issue of the purchase order. The delivery period offered has to be strictly adhered to in case an order is placed.
2. **Payment:** - **No advance payments are allowed under any circumstances.** 100% payment will be made against Delivery, Installation, Commissioning, Training & acceptance by IIT

Hyderabad and submission of **Performance Bank Guarantee** for the value of 5% of the order value, valid for a period of **warranty period plus 60 days**.

3. Earnest Money Deposit (EMD):

- i. The tender documents must be accompanied by an Earnest Money Deposit (EMD) of **Rs. 5,00,000/-** in the form of **Account Transfer/Demand Draft/Bank guarantee from any commercial bank on any Scheduled/Nationalized Bank in favor of the Director, Indian Institute of Technology Hyderabad.**
- ii. The original document in case of EMD (other than MSME/NSIC) should be posted/couriered/given in person to the Stores & Purchase Section of IIT Hyderabad on or before the opening of Technical Bid. In case of non-receipt of original document before the due date of opening of technical bid, the uploaded bid will be summarily rejected.

For Online Payment of EMD /& Tender Fees: The EMD/Tender Fees can also be paid online, the bank details are as follows:

Canara Bank Account Details	
Name of the Bank	Canara bank
Branch Name & Bank Code	IIT KANDI & 3458
Account Number	110171129768
Pan No. of the institute	AAAAI2661J
GST no. of the institute	36AAAAI2661J1ZP
Bank Branch IFSC code	CNRB0003458
Bank Branch MICR code	500015066
SWIFT:	CNRBINBBBFD

The Online payment proof needs to be uploaded along with the Technical Bid.

The firm registered with NSIC/MSME/Udyam Adhaar must give proof of registration along with their quotation failing which the bid will not be considered.

Exemption from submission of EMD/Tender Fees against valid and relevant NSIC /MSME Certification is permitted, however it shall be subject to scrutiny by the IITH and if during scrutiny, it is found that the NSIC Certificate is invalid and/or irrelevant, then that bid is liable to be rejected as “not-accompanying EMD”. Therefore, Bidders claiming exemption from EMD/Bid Securing Declaration against NSIC certificate, should ensure the same carefully, while submission of their bids.

Note: If in the view of bidder, any exemption / relaxation is applicable to them from any of the eligibility requirements, under any Rules / Guidelines/ Directives of Government of India, bidder may submit their claim for the applicable exemption /relaxation, quoting the valid Rule/Guidelines/ Directives with a copy of such notification. In this case the bidder must submit necessary and sufficient documents along with the technical bid, in support of their claim. The relevant and valid certificates in support of claim of exemption must be submitted along with the Technical Bid.

i) The BIDDER who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote or submit Proforma invoice of their principals for this tender.

ii) The successful BIDDER, on award of contract / order, must send the contract / order acceptance in writing, within 15 days of award of contract.

iii) Bids submitted without Bid Securing Declaration / relevant MSME/NSIC Certificates will be rejected & no correspondence in this regard shall be entertained.

iv) These exemptions /relaxations are meant for procurement of only goods produced and services rendered by MSEs. Traders/ distributors/ sole agent/ Works Contract are excluded from the purview of the policy.

This Bid is also governed by the latest General terms and conditions as per GeM.

4. Bid Opening and Evaluation Process:

a. Technical Bids will be opened as per the Date Schedule & Time.

- b. Financial Bids/Commercial Bids of the eligible bidders will be opened at a later date. The date and time for opening of Financial Bids /Commercial will be announced later.
- c. Bids would be summarily rejected if the tender is submitted other than through an online portal. The Bid is to be submitted within the stipulated date / time.

Technical Committee

(i) On the due date the Technical bids will be opened and referred to a duly constituted technical committee which is duly constituted. The committee will go through the technical aspects of the tender and recommend short listed firms. The recommendation of the technical committee is the final and binding on all the parties.

(ii) The technical evaluation will be an assessment of the Technical Bid. IIT Hyd representatives will proceed through a detailed evaluation of the Technical Bids as defined in Annexure - A (Schedule of requirements, specifications and allied technical details), in order to determine whether they are substantially responsive to the requirements set forth in the tender. In order to reach such a determination, IIT Hyd will examine the information supplied by the BIDDERS, and shall evaluate the same as per the specifications mentioned in this tender.

(iii) The technical committee may formulate evaluation criteria in addition to the specifications and requirements indicated in the tender, in the interest of IIT Hyd and these criteria/recommendation will also form as a part of short-listing of the firms.

(iv) The Technical Committee will examine all the Technical aspects of the bids received. Further, the Technical Committee may seek additional information from the existing users at IIT Hyd or from other Institutes, these feedbacks will be considered for technical evaluation, the bidders will also be called for technical presentations if it is required so. The bidder will have to provide the details/any additional documents as and when sought by the Technical committee.

(v) The information received and the bids already submitted together will be examined with reference to the tendered specifications and evaluation is made by the Technical Committee.

(vi) After the technical evaluation is completed and approved, IIT Hyd shall inform to the BIDDERS whose bids have been rejected technically with the reasons for rejection.

(vii) The successful BIDDERS will be informed regarding the date and time of Commercial bid opening.

(viii) In the event of seeking any clarification from various BIDDERS by IIT Hyd , the BIDDERS are required to furnish only technical clarifications that are asked for. No amendment to commercial bid will be entertained at that stage. In case if a BIDDER fails to

quote for a particular item it amounts to non-compliance and hence such bid will not be considered for further evaluation. Further during this process if any BIDDER indicates the price during the clarification such bids also will not be considered for further evaluation.

5. The Director, IIT Hyd reserves the right to accept the offer in full or in parts or reject summarily or partly.

6. Bid Validity Period:

a. The prices must be valid at least for a period of **90 days** from the date of opening of the Tender. No changes in prices will be acceptable in any condition after opening of tender till the validity of the offer or execution of the order whichever is later

b. IIT Hyd may ask for the BIDDER's consent to extend the period of validity. Such request and the response shall be made in writing only. The BIDDER is free not to accept such request. A BIDDER agreeing to the request for extension will not be permitted to modify his bid.

c. Bid evaluation will be based on the bid prices without taking into consideration the above corrections

7. AWARD OF CONTRACT:

a. IIT Hyd, shall award the contract to the technically qualified eligible BIDDER whose bid has been determined as the lowest evaluated commercial bid.

b. If more than one BIDDER happens to quote the same lowest price, IIT Hyd reserves the right to award the contract to more than one BIDDER or any BIDDER.

8. IIT Hyd reserves the right to vary quantities at the time of Award:

a. IIT Hyd reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the tender document without any change in unit price or other terms and conditions. Further, at the discretion of IIT Hyd, the quantities in the contract may be enhanced by 25% within the delivery period.

b. Firms which have already supplied similar equipment to IIT Hyd and have not completed required installation/commissioning/after sales service/warranty replacements etc. such firms offer will not be considered for further evaluation and no enquiries thereafter will be entertained.

9. Fraud and Corruption:

IIT Hyd requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

(a) The terms set forth below are defined as follows:

- (i) “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or in directly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
- (ii) “Fraudulent practice” means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
- (iii) “Collusive practice” means a scheme or arrangement between two or more bidders, designed to establish bid prices at artificial, non -competitive levels; and
- (iv) Coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract

(b) IIT Hyd will reject a proposal for award if it determines that Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent collusive or coercive practices in competing for the Contract in question

10. Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, Director, IIT Hyd’s interpretation of the clauses shall be final and binding on all parties.

11. Security Deposit:

a. Within fifteen (15) days of the award of contract, the vendor shall furnish a Security Deposit amounting to **5%** of the purchase order value in the form of Insurance Surety Bonds, Account Payee, Demand Draft, Fixed Deposit Receipt, Banker’s Cheque or Bank guarantee from any commercial Banks or payment online of a scheduled bank in the name of Director, IIT Hyd favouring the Director, IIT Hyd.

b. The Security Deposit will be encashed/claimed if the vendor fails to execute the order as per the Purchase Order.

c. **The Security Deposit should be valid for a period of 03 Year warranty + 60 days, as the same will extend the same as Performance Bank Guarantee. Hence while preparing the BG, the time required for delivery and installation and warranty + 60 days needs to be accounted for to cover the BG validity period.**

d) This Security Deposit will be refunded to the vendor only on satisfactory completion of all contractual including warranty obligations as per this Tender and Purchase Order issued against this Tender.

e) Bank Guarantee wherever mentioned in this document may be read as “Bank Guarantee from any Scheduled Bank” only. The Bank Guarantee should be submitted in Hard Copy to IITH and the issuing Bank should send the IFN 760 COV Bank Guarantee Advice Messages to our bankers through SFMS (Structured Finance Messaging System). Our Bank details are as follows:

Canara Bank Account Details	
Name of the Bank	Canara bank
Branch Name & Bank Code	IIT KANDI & 3458
Account Number	110171129768
Pan No. of the institute	AAAAI2661J
GST no. of the institute	36AAAAI2661J1ZP
Bank Branch IFSC code	CNRB0003458
Bank Branch MICR code	500015066
SWIFT:	CNRBINBBBFD

12. Pre-installation: The BIDDER must state in detail the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system and to run the tests. i.e. pre-installation facilities required for installation may please be intimated in the technical bid. Subsequently, before the consignment lands in IIT Hyd the bidder shall confirm that the pre-installation requirements are sufficient for installation of the equipment. The BIDDER should continuously monitor the

pre-installation requirements and see that everything is ready before the consignment is taken to the site for installation.

13. Installation:

- a) BIDDER shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.
- b) Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site, unless otherwise instructed by the Institute
- c) After successful installation what will be the minimum down time of equipment/instrument in case of breakdown. If the identified firm or person fails to put the system into working condition what is the further alternative course of action suggested to adhere to minimum down time should be covered in the Technical Bid.

14. Inspection:

- a) The inspection of the system will be done by our technical expert /Scientist in the presence of firm's representative.
- b) In case of receipt of the material in short supply or damaged condition the supplier will have to arrange the supplies/ replacement of goods free of cost pending the settlement of the insurance case wherever applicable on FOR at the IIT Hyd.

15. Training: Wherever needed, Scientist/Technical persons of the Institute should be trained by the supplier at the project site free of cost. In case the person is to be trained at supplier's site abroad or in India it should be mentioned in the quotation clearly. The supplier should bear all the expenses for such training including 'to & fro' fares and lodging & boarding charges.

16. Warranty / Support:

- a) The items covered by the schedule of requirement shall carry minimum **03 Years** warranty from the date of acceptance of the equipment by IIT Hyd. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.
- b) The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, local taxes if any should be borne by the beneficiary or his agent. No cost will be borne by IIT Hyd.

- c) The warranty on the associated software should cover providing of upgraded version/s, if any, released during the warranty period free of cost.
- d) The Bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- e) The equipment must be supported by a Service Centre in India manned by the technical support engineers. Also it should be possible to contact the Principal's vendor support Centre on a toll free number/web/mail. The support through this Centre must be available during all working days and hours.
- f) The manufacturer/OEM is should facilitate the bidder/Agent on regular basis with technology / product updates & extend support for the warranty as well.
- g) The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.
- h) The principal vendor must have a local logistics support by maintaining a spares in the country of deployment of the equipment, with the Indian Agent. This is to ensure immediate delivery of spares parts from Principal Vendor of equipment to its channel partner/system integrator.
- i) Details of the agency who shall maintain during warranty and undertake Annual Maintenance Contract/Comprehensive Service Maintenance Contract beyond warranty shall be given in the offer. In case of foreign quote, the Indian Agent who shall maintain during warranty and AMC beyond warranty shall be given in the Technical Offer
- j) **Commencement of Warranty Period:** The warranty period of an item shall commence from the date of successful installation, commissioning and demonstration & Training at IIT Hyd. The warranty period and validity of Performance Guarantee shall be extended for the period of delay in satisfactory installation and delay in warranty services.
17. **Reasonability of Prices:** The prices quoted must be the prices applicable for a premiere Educational and Research Institute of national importance. The bidder must give details of identical or similar equipment, if any, supplied to other IITs/ IISERs/ CSIR lab/ CFTI's during last three years along with the final price paid and Performance certificate from them.
18. **Annual Maintenance Contract:** The bidder must mention in the quotation, the rate/amount of annual maintenance charges, if we opt for maintenance contract after expiry of the warranty period. This is mandatory to mention, wherever applicable. No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period.

19. Indemnity: The vendor shall indemnify, protect and save IIT Hyd against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the equipment's supplied by the bidder/OEM.

20. Freight & Insurance: The equipment'/items to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at IIT Hyd site

21. Amalgamation/Acquisition etc.: In the event the Manufacturer/Supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the BUYER/Successor of the Principal Company are liable for execution of the contract and also fulfilment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. while submitting your bid, you may confirm this condition.

22. Liquidity Damage for delayed Services

i) As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to, failing which, IIT Hyd encash/claim the Security Deposit and also LD clause will be applicable /enforced.

ii) If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 0.5 % of order value per every week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.

iii) IIT Hyd reserves the right to cancel the order in case the delay is more than 10 weeks. Penalties, if any, will be deducted from the Security Deposit.

23. Requirement of registration: Vide Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

- a. Any bidder from a country sharing a land border with India will be eligible to bid in this tender only if the bidder is registered with the Department for Promotion of Industry and Internal Trade (DPIIT).
- b. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions

of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

- c. "Bidder from a country which shares a land border with India" for the purpose of this Order means:
 - i. An entity incorporated, established or registered in such a country; or
 - ii. A subsidiary of an entity incorporated, established or registered in such a country; or
 - iii. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - iv. An entity whose beneficial owner is situated in such a country; or
 - v. An Indian (or other) agent of such an entity; or
 - vi. A natural person who is a citizen of such a country; or
 - vii. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- ii. For details about registration procedures please visit the above mentioned OM. Mandatory documentary evidence regarding the bidder's registration with DPIIT is to be submitted along with the tender, failing which the tender shall be liable for rejection. Bidders are also requested to submit the Model Certificates as **per Annexure** for this tender as mentioned in the Ministry of Finance OM No. 6/18/2019-PPD dated 23rd July 2020.

24. Public Procurement (Preference to Make in India), Order 2017:

- i. IIT Hyd shall compare all substantially responsive bids to determine the lowest valued bid. This Institute is following and abide with the Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E. II dated 15th June 2017 and its subsequent amendments. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself.
- ii. As per the above order and its subsequent amendments "Local Content" means the amount of value added in India which shall be value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all the custom duties) as a proportion of the total value, in percent. Accordingly, the suppliers will be classified in following categories.

- 1. **Class I local Supplier – has local content minimum 50%**
- 2. **Class II local Supplier – has local content minimum 20%**

- b. **Verification of Local Content:** The Class I Local Supplier /Class II Local Supplier at the time of bidding shall be required to indicate the percentage of local content and provide self-certification as per **Annexure that** the items offered meet the local content requirement. The details of the location(s) at which the local value addition is made also needs to be specified.

The bidders can be debarred for a period up to two years as, per Rule 151(iii) of GFR 2017, in case of false declaration.

Complaint Redressal Mechanism:

In case any complaint received by the procuring agency or the concerned Ministry/Department against the claim of a bidder regarding local content/domestic value addition in a product, the same shall be referred to competent authority at IITH or the relevant Ministry.

The bidder against whom the complaint is received shall be required to furnish the necessary documentation in support of the domestic value addition claimed in the product to authority. If no information is furnished by the bidder, such laboratories may take further necessary action, to establish the bonafides of the claim

A complaint fee of Rs. 2 lakh or 1% of the value of the domestically manufactured products being procured (subject to a maximum of Rs.5 lakh), whichever is higher, to be paid by Demand Draft to be deposited with Procuring Institute. In case, the complaint is found to be incorrect, the complaint fee shall be forfeited. In case, the complaint is upheld and found to be substantially correct, deposited fee of the complainant would be refunded without any interest.

False declarations will be in breach of the Code of Integrity under Rule 175 (1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

25. **Note for MSME/NSIC/Start up Bidder:** If in the view of bidder, any exemption / relaxation is applicable to them from any of the eligibility requirements, under any Rules / Guidelines/ Directives of Government of India, bidder may submit their claim for the applicable exemption /relaxation, quoting the valid Rule/Guidelines/ Directives with a copy

of such notification. In this case the bidder must submit necessary and sufficient documents along with the technical bid, in support of their claim. The relevant and valid certificates in support of claim of exemption must be submitted along with the Technical Bid.

These exemptions /relaxations are meant for procurement of only goods produced and services rendered by MSEs. Traders/ distributors/ sole agent/ Works Contract are excluded from the purview of the policy.

This Bid is also governed by latest General terms and conditions as per GeM

26. **Force Majeure:** IIT Hyd may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that the delay, in performance or other failure to perform its obligations under the Contract, is the result of a Force Majeure. Force Majeure is defined as an event of effect that cannot reasonably be anticipated such as acts of God (like earthquakes, floods, storms etc.) acts of states, the direct and indirect consequences of wars (declared or undeclared) hostilities, national emergencies, civil commotion and strikes at successful Bidder's premises.

27. **Dispute Settlement:**

IIT Hyd and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the IIT Hyd or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration.

Arbitration may be commenced prior to or after delivery of the Goods under the Contract. The dispute settlement mechanism/arbitration proceedings shall be concluded as under:

- (a) In case of Dispute or difference arising between the IIT Hyd and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director IIT Hyd, if he is unable/ unwilling to act, to the sole arbitration of some other person appointed by his willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

- (b) In the case of a dispute between the Purchase and a Foreign supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules. The venue of the arbitration shall be the place from where the purchase order or contract is issued.
28. **Jurisdiction:** The disputes, legal matters, court matters, if any, shall be subject to Hyderabad Jurisdiction only.
29. The Director, IIT Hyd reserves the right to accept the offer in full or in parts or reject summarily or partly and also reserves the right to cancel the tender at any stage without assigning reasons.

Checklist for BIDDERS

BIDDERS to indicate whether the following are enclosed/mentioned by striking out the non-relevant option

Sl. No.	Content	File Types	Document Attached
1	FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS- Annexure- B	.PDF	(Yes /No)
2	UNPRICED TECHNICAL BID – Annexure-‘C’	.PDF	(Yes /No)
3	MANUFACTURER’S AUTHORIZATION & WARRANTY SUPPORT DECLARATION – Annexure D	.PDF	(Yes /No)
4	Declaration for Local Content from OEMs Letter Head – ANNEXURE – E	.PDF	(Yes /No)
5	CERTIFICATE BY BIDDER- DPIIT REGISTRATION- ANNEXURE –F	.PDF	(Yes /No)
6	DECLARATION REGARDING CLEAN TRACK/NO LEGAL ACTION - ANNEXURE G	.PDF	(Yes /No)
7	Bidder Information form as per Annexure-‘H’	.PDF	(Yes /No)
8	PREVIOUS SUPPLY ORDER LIST FORMAT - ANNEXURE I	.PDF	(Yes /No)
9	ACCEPTANCE OF TENDER TERMS (To be given on Company Letter Head) - ANNEXURE – J	.PDF	(Yes /No)
10	ANNUAL MAINTENANCE CONTRACT – Annexure O	.PDF	(Yes /No)

ANNEXURE -B

FORMAT OF COMPLIANCE STATEMENT OF SPECIFICATIONS

1	2	3	4	5	6
S. N.	Name of specifications/part / Accessories of tender enquiry As per Annexure A of the Tender Document.	Specifications of quoted Model/ Item	Compliance Whether “YES” Or “NO”	Deviation, if any, to be indicated in unambiguous terms	Whether the compliance / deviation is clearly mentioned in technical leaflet/ literature
1					
2					
3					
n					

NOTE: The bidder should also submit the Brochure with technical details of the product supporting the compliance statement.

UNPRICED TECHNICAL BID
(Bidder should provide the following details on Letter head)

Quotation No :

Date:

Name of the Bidder _____
No. _____

GeM bid

Sr.No	Item Description	Country of Origin	Make & Model	HSN Code	GST %	Qty
1						
2						
3						
n						

Other Terms & Conditions

1	Payment terms	:
2	Delivery Period from the date of Issue of PO	:
3	Warranty	:
4	Any other additional terms	:

ANNEXURE – D

MANUFACTURER’S AUTHORIZATION & WARRANTY SUPPORT DECLARATION

(ON OEMs Letter head)

Date:

Tender No / GeM bid no:

To
The Director,
Indian Institute of Technology Hyderabad,
Kandi, Hyderabad – 502 284

We, _____ [name of Manufacturer], who are official manufacturers of [Insert type of goods manufactured] having factories at [insert full address of Manufacturer’s factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following goods, manufactured by us [insert name and or brief description of the goods], and to subsequently negotiate and sign the contract.

We hereby extend our full guarantee, warranty, availability of spare parts and AMC support in accordance with the Terms and Conditions of Contract with respect to the Goods offered by the above firm.

Authorized representative of the Manufacturer

Authorized representative Bidder

Signature:

Signature:

Name:

Name:

Address:

Address:

Mobile No:

Mobile No:

Email ID:

Email ID:

ANNEXURE E

Declaration for Local Content (on OEM's Letter Head)

(To be given on Company Letter Head - For tender value below Rs.10 Crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 Crores)

Date: _____

To,
The Director,
Indian Institute of Technology Hyderabad,
Kandi, Sangareddy 502284

Sub: Declaration of Local content

Tender Reference No: _____

Name of Tender / Work: - _____

1. Country of Origin of Goods being offered: _____
2. We hereby declare that items offered has ____% local content (**Please provide exact %**).
3. Details of location at which local value addition will be made / made: (Complete address to be mentioned) _____

“Local Content” means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

“*False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.”

Yours Faithfully,
(Signature of the Bidder/OEM, with Official Seal)

ANNEXURE F

CERTIFICATE BY BIDDER- DPIIT REGISTRATION

“ I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, / if from such a county, has been registered with the Competent Authority (copy of the Registration Certificate enclosed) . I hereby certify that his bidder fulfils all requirements in this regard and is eligible to be considered.

Signature with Date and Stamp
Of the Bidder

ANNEXURE G

DECLARATION REGARDING CLEAN TRACK/NO LEGAL ACTION

(to be provided on letter head of the firm)

I hereby certify that the above firm namely _____ is neither blacklisted by any Central/State Government/Public Undertaking/Institute nor any criminal case registered / pending against the firm or its owner / partners anywhere in India.

I also certify that the above information is true and correct in any every respect and in any case at a later date it is found that any of the details provided above are incorrect, any contract given to the above firm may be summarily terminated and the firm blacklisted.

OR

I hereby certify that our firm namely _____ was blacklisted by _____ for a period of _____ years/months at the Institute Level/ All Indian Level.

Date:

Authorized Signatory

Name:

Place:

Designation:

Contact No.:

ANNEXURE –H

BIDDER INFORMATION FORM

Company Name : _____

Registration Number : _____

Manufacturer /Distributor for the quoted product :

Registered Address : _____

Name of Partners /Director: _____

City : _____

Postal Code : _____

Company's Establishment Year : _____

Company's Nature of Business : _____

Company's Legal Status 1) Limited Company
(tick on appropriate option) 2) Undertaking
 3) Joint Venture
 4) Partnership
 5) Others (In case of Others please specify)

Company Category 1) Micro Unit as per MSME
 2) Small Unit as per MSME
 3) Medium Unit as per MSME
 4) Ancillary Unit
 5) SSI
 6) Others (In case of Others please specify)

CONTACT DETAILS

Contact Name : _____

Email Id : _____

Designation : _____

Phone No : (_____) _____

Mobile No : _____

BANK DETAILS

Name of Beneficiary : _____

A/c. No. CC/CD/SB/OD: _____

Name of Bank : _____

IFSC NO. (Bank) : _____

Branch Address and Branch Code: _____

Other Details

Vendor's PAN No. _____

Vendor's GST _____

ANNEXURE – I

PREVIOUS SUPPLY ORDER LIST FORMAT

Order placed by <i>{Full address of Purchaser}</i>	Order No. and Date (Copies Need to be attached)	Description and quantity of ordered equipment	Value of order	Contact Person along with Telephone no., Fax no. and e-mail address.

Note: Technical Committee may seek additional information from the existing users at IIT Hyd or from other Institutes, these feedbacks will be considered for technical evaluation.

Signature and Seal of the Manufacturer/ bidder

Place:

Date:

ANNEXURE – J

ACCEPTANCE OF TENDER TERMS
(To be given on Company Letter Head)

Date: DD/MM/YYYY

To,

The Director
Indian Institute of Technology Hyderabad
Kandi – 502 285.Telangana, India

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No/GeM Bid no: _____

Name of Tender / Work: -

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned ‘Tender’ from the web site(s) namely _____ as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

ANNEXURE – K

Bid Securing Declaration Form

Date: _____

Tender No. _____

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported with EMD of Rs. 2,00,000/-

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of two year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

- a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: _____ (insert signature of person whose name and capacity are shown)
in the capacity of _____ (insert legal capacity of person signing the Bid Securing Declaration)

Name: _____ (insert complete name of person signing he Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

ANNEXURE -L

FORMAT FOR PERFORMANCE BANK GUARANTEE

To
Indian Institute of Technology Hyderabad.
Kandi, Sangareddy 502284

Dear Sirs,

In consideration of the Indian Institute of Technology Hyderabad (hereinafter referred to as the "Buyer" which expression shall unless excluded by or repugnant to the context or meaning thereof, include its successors administrators and assigns) having issued to (Name of the seller) with its Registered / Head Office at (hereinafter referred to as the "Seller" which expression shall unless excluded by or repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) an order bearing Purchase Order No. dated and the same having been unequivocally accepted by the seller resulting into a Contract between the buyer and the seller for supply of, more fully described in the said Purchase Order and the buyer in terms of one of the provisions of the said Purchase Order and whereas the Seller has undertaken to produce a Bank Guarantee amounting to Rs. _____, which is **5%** of the Contract value in aggregate for Performance and Warranty to the Buyers.

We, the _____ bank hereby expressly, irrevocably and unreservedly undertake the guarantee as Principal obligators on behalf of the SELLER that, in the event that the BUYER declares to us that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the BUYER by reason of breach/failure to perform by the said SELLER of any of the terms and conditions in the contract related to the Performance and Warranty clauses, we will pay you, on demand and without demur, all and any sum upto (**5%** of the contract value) Rs. _____ only at any one instance under this Guarantee. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. We shall not be entitled to ask you to establish your claim or claims under this guarantee but will pay the same forthwith without any protest or demur. We undertake to effect the payment upon receipt of such written demand.

We shall not be discharged or released from the undertaking and guarantee by any arrangements, variations made between you and the SELLER, indulgence to the SELLER by you, or by any alterations in the obligations of the SELLER or by any forbearance whether as to payment, time performance or otherwise.

We further agree that any such demand made by the BUYER on the Bank shall be conclusive, binding, absolute and unequivocal notwithstanding any difference or dispute or controversy that may exist or arise between you and the Seller or any other person.

In no case shall the amount of this guarantee be increased.

This Performance-cum-Warranty guarantee shall remain valid for a period until 60 days beyond the warranty period i.e. upto _____

Subject to the terms of this Bank Guarantee, the issuing bank hereby irrevocably authorizes the beneficiary to draw the amount upto Rs. _____ (5% of the total contract value) for breach/failure to perform by the Seller of any of the terms and conditions of the contract related to performance and warranty clause. Notwithstanding anything mentioned herein, the total drawings under the Guarantee by the buyer shall not exceed 5% of the total contract value. Partial drawing and multiple drawings under this Bank Guarantee are allowed within the cumulative amount and subject to each such drawing not exceeding 5% of the contract value.

This guarantee shall be continuing guarantee and shall not be discharged by any change in the constitution of the Bank or in the constitution of M/s. _____. We undertake not to revoke this guarantee during the currency except with previous consent of BUYER in writing.

Notwithstanding anything contained herein above:

- Our liability under this Guarantee shall not exceed Rs. _____ (Rupees _____ only (in words)
- This Bank Guarantee shall remain valid until 2 months from the date of expiry of warranty period of the contract i.e. upto _____ (mention the date) which is 2 months after expiry of the warranty period and the BG shall cease to be valid after _____ irrespective whether the Original Bank Guarantee is returned to us nor not.
- We are liable to pay guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written demand or a claim in writing on or before _____ (Expiry Date)

Dated the _____ day of _____ (month and year)

Place

Signed and delivered by _____ (name of the bank)

Through its authorized signatory
(Signature with Seal)

ANNEXURE –M

BANK GUARANTEE FORMAT FOR EARNEST MONEY DEPOSIT

To
Indian Institute of Technology Hyderabad.
Kandi, Sangareddy 502284

WHEREAS _____(Name of Bidder) (hereinafter called "the Bidder" has submitted its Bid dated _____ (Date) for the execution of (Name of Contract)_____ Tender no & Date: _____(hereinafter called "the Bid") in favour of _____hereinafter called the "Employer" (IFSC Code: SBIN0014182 ; KNOW ALL MEN by these presents that we, _____(name of the issuing Bank), a body corporate constituted under the _____having its Head Office at _____amongst others a branch/office at _____ (hereinafter called "the Bank" are bound unto the employer for the sum of Rs _____(Rupees _____only) for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents;

THE CONDITION of this obligation is:

If the bidder withdraws or amends their offer of empanelment before finalization of empanelment by the employer,
We undertake to pay to the Employer up to the above amount upon receipt of his first written demand without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence the above condition.

Notwithstanding anything contained herein

- i. Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees _____only)
- ii. This Bank Guarantee **(it should be valid six months from the date of issue of BG)** is valid up to _____ and
- iii. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____(mention period of guarantee as found under clause (ii) above plus claim period)

Dated _____ day of _____ 20____

SIGNATURE OF THE BANK

ANNEXURE –N

PRE-CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on-----
- between, on one hand, the President of India acting through Shri [REDACTED], Designation of the officer, Ministry / Department, Government of India (hereinafter called the “BUYER”, which expression shall mean and include, unless the context otherwise required, his successors in office and assigns) of the First part and -----represented by ----- (hereinafter called the “BIDDER/ Seller” which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure (Name of the Stores/Equipment/Item) and the BIDDER/Seller is willing to offer/has offered the stores and

WHEREAS the BIDDER is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Ministry/Department of the Government of India/PSU performing its functions on behalf of the President of India.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered in with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the BUYER

- 1.1. The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, with demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.
- 1.2. The BUYER will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.
- 1.3. All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERS

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage to secure the contract or in furtherance to secure it and in particular commit itself to the following: -
 - 3.1. The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
 - 3.2. The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage commission, fees, brokerage or inducement o any official of

the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.

- 3.3. BIDDERS shall disclose the name and address of agents and representatives and Indian BIDDERS shall disclose their foreign principals or associates.
- 3.4. BIDDERS shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5. The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized government sponsored export entity of the defence stores and has not engaged any individual or firm or company whether India or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6. The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 3.7. The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 3.8. The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9. The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10. The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11. The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.12. If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the BUYER, or alternatively, if any relative of an officer of the BUYER has financial interest/stake in

the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.

3.13. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.

3.14. The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER.

4. Previous Transgression

4.1. The BIDDER declares the no previous transgression occurred in the last three years immediately before signing of the Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

4.2. The BIDDER agrees that if it makes an incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit):

5.1. While submitting a commercial bid, the BIDDER shall deposit an amount Rs./- (to be specified in RFP) as Earnest Money/Security Deposit, with the BUYER through any of the following instruments:

(i) Bank Draft in favour of Indian Institute of Technology Hyderabad

(ii) A confirmed guarantee by an Indian Nationalised Bank, promising payment of the guaranteed sum to the BUYER on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payment.

(iii) Any other mode or through any other instruments (to be specified in the RFP).

5.2. The Earnest Money / Security Deposit shall be valid up to a period of five years or the complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and the BUYER, including warranty period, whichever is later.

5.3. In case of the Implementing Agency a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions of Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

5.4. No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

6. Sanction for Violations

6.1. Any breach of the aforesaid provisions by the BIDDER or anyone employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required: -

(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

(ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

(iv) To recover all sums already paid by the BUYER, and in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments already made by the buyer, along with interest.

(vi) To cancel all or any other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

(vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the BUYER.

(viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

(ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

(x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2 The BUYER will be entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this Pact also on the commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor (s) appointed for the purposes of this Pact.

7. Fall Clause

7.1. The BIDDER undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the BUYER, if the contract has already been concluded.

8. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact of payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

9. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

10. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

11. Validity

- 11.1. The validity of this Integrity Pact shall be from date of its signing and extend upto 5 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 11.2. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.
12. The parties hereby sign this Integrity Pact at Pune on July 24, 2023

Buyer

Bidder

Name of the Officer

Name of the Officer

Designation

Designation

Deptt./MINISTRY/PSU

Witness

Witness

1. _____

2. _____

ANNEXURE – O

ANNUAL MAINTENANCE CONTRACT

We hereby certify that the Annual Maintenance Contract for the equipment, **after expiry of warranty period, will be charged as follows :**

For Comprehensive AMC

- 1) 1st year ____ % of the equipment value
- 2) 2nd year ____% of the equipment value
- 3) 3rd year ____% of the equipment value.

We also certify that the spares for the equipment will be available for the equipment for ____ years.

Date:

Authorized Signatory

Name:

Place:

Designation:

Contact No.: