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i. General information

Assignment name	Digital Research and Online Webinar-Training Unit (DRWU)
Beneficiary	Medical Research and Care Centre (MRCC)
Country	Nineveh - Iraq
Total estimated number of months	90 days

The project “Support to Medical Care and Research Centre (MRCC)” of the University of Mosul aims to improve the health conditions of the population of Nineveh Governorate, by providing a range of health care and strengthening medical training with a view to national excellence. The main objective is to ensure the rehabilitation of the Centre’s building and equipment so as to enable rapid start-up of diagnostic and external consultation activities in Mosul while guaranteeing international standards are followed.

Project focuses on the continuity of oncology healthcare services at MRCC's by integrating rehabilitation activity and ensuring the timely provision of essential medical equipment required for patient care and recovery. This includes the development of laboratory activities, radiography, cardiology, neurophysiology, endoscopy, urology, and on radiotherapy and chemotherapy services.

Aiming to a continuous capacity building program for MRCC team members, and Hosting/providing trainings to practitioners/partners, and to foster the International Cooperation Partnership between MRCC and University Medical Centres in France, the project is seeking to establish “Digital Research and Online Webinar-Training Unit (DRWU)” at the oncology department of MRCC. Since International Cooperation is at the heart of all academic research for oncology, and this partnership is an excellent way for practitioners, academics, and researchers to collaborate and share knowledge with other institutions, this unit will enable data-capturing/analysis, knowledge sharing and research development.

The objectives of should detail the establishment of the unit (scope of work, assessment and technical requirements), provision of equipment (including infrastructure, software, and equipment procurement/installation), with warranty (maintenance and upgrade plans). Key sections should cover the training and capacity building of the operator.

Data Security and protection guidelines are to be established and applied to all research handled at this unit. Protection procedures are evaluated on regular basis and updated for reference. Information is likely to be collected and stored using different media, workflow and identified measures for securing the personal data in its holding locations and in transit between them. Security controls such as password protection access controls to be applied to files, folders,

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storage volumes, and devices. Level of access control for all digital personal data holdings will be applied, and to use encryption to protect sensitive data.

ii. Context and justification of the need

MRCC is a 150-bed research hospital located at the University of Mosul in Mosul-Ninawa Governorate, Iraq. Establishing a university “**Digital Research and Online Webinar-Training Unit (DRWU)**” is crucial for research integrity, efficiency, and impact, as it provides researchers with the necessary expertise, tools, and infrastructure to properly analyse data, draw accurate conclusions, and collaborate effectively.

This dedicated unit can address the growing complexity of data-driven research by offering standardized processes, support for advanced analytics, and centralized resources, access to remote resources and trainings (via conferences and webinars), which leads to more reliable and robust findings and accelerates innovation.

iii. Objectives and desired results

1) General objective

To foster and strengthen the international cooperation through partnership with French research institutes, so that MRCC be part of a global network of institutions striving to develop high-quality, innovative research across all disciplines, specifically oncology, pushing international standards in education higher for the university of Mosul. Mosul University students and faculties can access research’s content and training/webinar classes, courses experiences.

The collaboration between MRCC and the French institutes/universities is an opportunity to exchange ideas, learn from each other, and ultimately be a catalyst for positive change in communities.” This exchange of experience and research will be particularly significant for students, who will be able to collaborate with peers on a global scale.

2) Specific objectives

- Fosters collaboration: A unit can facilitate data sharing and collaboration across disciplines and with external partners, helping to build a more comprehensive research ecosystem within the university.
- Ensures research integrity and accuracy: A dedicated unit helps researchers avoid common pitfalls like misinterpreting data or using inappropriate statistical methods, which can lead to flawed conclusions that mislead others.

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- Provides expert support: Many researchers may lack specialized data analysis skills. A unit offers access to remote experts who can ensure the data is analysed correctly and that research projects are successful.
- Standardizes processes and tools: It can centralize the use of data management, governance, and quality processes, providing a secure and flexible environment for analysis and ensuring compliance across different projects and departments.
- Accelerates innovation: By providing a central hub for data access, analysis, and collaboration, a unit can streamline the research lifecycle and accelerate the pace of discovery.
- Supports strategic decision-making: Just as a unit can help researchers with their findings, it can also provide the university administration with insights into research trends, resource allocation, and strategic planning.

iv. Scope of work

1) Site Visit and Assessment

- Assess general site access, and the condition of surrounding areas to ensure minimal disruption to other works and safety.
- Confirm that all equipment and systems (HVAC units, piping, ductwork, electrical panels, lighting) are installed correctly and in the specified locations.

2) Supply, Install, Configure of:

- Hardware: Required equipment, including high-performance computers, and data storage solutions.
- Software: Specific software licenses needed for video conferencing, visualization, training and data analysis.
- Networking: Provisions for high-speed internet connectivity and internal network setup to support data access and remote collaboration.
- Conference furniture (table, chairs, blinds, microphones, speakers, whiteboards, cable management)

3) Training

- Provide technical and operation training to end users.
- Curriculum development, which may include manuals, and hands-on exercises.

4) Maintenance and upgrade planning

- Comprehensive onsite maintenance for 2 (two) Years for all the hardware that are going to be supplied and support for the upgrade plans for the software will be taken as the basis for evaluation of financial bids.

v. Description of the assignment

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To achieve the set objectives and scope of work (Assess, Supply, Install, Configure and Training). the assignment will include the following tasks:

- 1) Design, Technical drawings: Use measuring tools to confirm dimensions and locations as directed by the site inspector.
- 2) Ensure lights are positioned correctly and look visually appealing, contrasting with the background as intended. Adequate curtains/blinding are installed.
- 3) Provide technical drawings indicate generally the arrangement of the installations of the equipment and layout of the unit. The position of equipment and apparatus shown thereon are approximate only, the exact positions, together with the actual runs of trunking and instrument etc., will be agreed upon with the Site Engineer and the end users prior to commencement of work.
- 4) Layout of the training room will accommodate U-SHAPE meeting configuration (Seats 12-14). This configuration is ideal for interactive meetings, workshops, or training sessions where a facilitator or leader needs to engage with each participant effectively. The open end of the U faces a central focal point, typically used for presentations or speakers, ensuring everyone has an unobstructed view. The U-Shape setup is versatile, accommodating various activities like group activities, demonstrations, or collaborative work, making it a popular choice in medium-sized meeting spaces.

4.1. Dimensions of the Training room are: **630cm L x 630cm D x 300cm H** (drawing are in [Annex-I](#))

- 5) Meeting and Room Clearances: The perimeter clearance should ideally be between (91-107 cm), providing adequate room for movement around the table and for chairs to be pushed back comfortably. A space ranging (122-213 cm) ensures that there is enough room for the presenter to move freely, interact with presentation materials, and engage with the audience without feeling constrained.
- 6) Provision of items and equipment and their TECHNICAL SPECIFICATION (All specifications in [Annex-II](#))
- 7) Operations shall be commenced upon notification of warding and shall be carried forward to completion with the greatest possible expediency, to the satisfaction of the contracting agency and the end users, in accordance with the submitted/approved workplan. The workplan shall be agreed with the technical team and shall adhere fully to the requirements and timing of the project.
- 8) After Supply, Install, Configure and Commissioning of all the above items and hardware at respective Location, the successful bidder shall collect the following reports:
 - a. Proof of Delivery
 - b. Job report for Installation Certificate and work Satisfactory duly signed by end users and contracting agency

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- c. Items serial numbers, Date of Installation, Date of warranty Start and Date of Warranty end and Escalation Matrix are to be furnished to contracting agency.
- 9) The warranty shall be 5 (Five) Years with comprehensive onsite support for all the Hardware parts. If additional period of warranty is provided by the vendor at the same cost, that will be an added advantage.
- 10) Conduct training for MRCC staff on the use and access of the digital platform and the related web based and mobile applications.
- 11) Technical Manuals: All equipment and software will have to be supplied with all the detailed operational and maintenance manuals at free of cost. In addition to certificate of origins, if required.
- 12) Validity of the Bid: The bid validity is 180 days from the date of opening the Technical Bid.

vi. Deliverables

Deliverables	End date
Site visit report or assessments. Prepare an inception report on the design, functions and implementation steps for the work.	
Technical and equipment specifications • Infrastructure: Detailed requirements for the physical space, such as flooring, acoustics, and lighting, to accommodate the new equipment and training activities. • Hardware: A list of required equipment, including high-performance computers, servers, and data storage solutions. • Software: Specific software licenses needed for data analysis, visualization, and training (e.g., statistical software, business intelligence tools).	

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Networking: Provisions for high-speed internet connectivity and internal network setup to support data access and remote collaboration.	
Budget: A breakdown of the estimated costs for equipment, software, infrastructure, and personnel in US dollar.	
Training and capacity building - Target audience: Identification of the specific groups that will receive training. - Curriculum development: The plan for developing training materials, which may include manuals and hands-on exercises. - Training delivery: Specifications for how the training will be conducted, including format, duration, and any required logistics like venue and catering.	
Project management and deliverables - A description of the key personnel needed and their specific roles. This might include project managers, IT specialists, and trainers. - Timeline: A project schedule with key milestones for procurement, installation, training, and final handover. - Deliverables: A list of tangible outputs, such as the final setup, training reports, user manuals, and a final project report. - Job reports	
Warrant and Maintenance plan	
Final report at the end of the project	

vii. Evaluations

Technical Evaluation on Capacity to Deliver the Service (70% of total Weight)

NO.	EVALUATION ATTRIBUTE	RESPONSE/Criteria	MAX. SCORE
TI	The Video Conference Solution architecture and project plan	- The proposed architecture which should be highly integrated and scalable with Deliverables (10 marks).	15

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		- Site visit and assessment (5 marks).	
TII	Software/hardware and drawing	- Quality proposed for VC system software (12 marks). - Quality proposed for VC system hardware (12 marks). - Technical drawing has its cables hidden and cable routing inside the components (6 marks).	20
TIII	Training, Warranty, Maintenance and upgrade plans	- Training plan for end users (5 marks). - Maintenance and upgrade plan including number of years (7 marks). - Warranty (8 marks).	20
TIV	Staffing and references	- Vendor Certified engineers with relevant qualifications in telecommunication or related field (attach CVs and copies of certifications) - The engineers must have a minimum of three (3) years' experience in installation and maintenance of the proposed systems (10 marks). - Vendor's previous provision of same project and maintenance of the above systems. Provide a list of at least five (2) major customers supported in the last 5 years (5 marks). A score of 2.5 mark will be awarded to each valid reference up to a maximum of 5 marks.	15

FINANCIAL EVALUATION (30% of total Weight)

Financial Evaluation shall involve checking arithmetic errors and completeness of the financial bids. Only tenderers who score 60 of the total 80 scores for Technical Evaluation and have a complete financial bid will be ranked.	30
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As part of the contract, each of the vendors must:

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1. The installation must be in accordance with standards and all the regulations in force (hygiene, machine safety, electrical safety, etc.). Each medical device and pressure device will be accompanied by CE declarations and CE type-examination certificates with the limit of validity and recurrence of controls.
2. To be considered for this tender, companies must have technical teams capable of either traveling to or being based in Mosul. These teams will be responsible for the installation and training of medical staff in the MRCC.
 - By submitting a proposal, the supplier agrees to fully and unconditionally accept the special and general conditions that govern this request for proposals and the EF proposed contract. The supplier acknowledges that these conditions, outlined in the provided Annex, serve as the sole basis for this procurement process. Any other sales conditions are hereby waived by the supplier. Tenderers are required to carefully review and adhere to all instructions, forms, contract provisions, and specifications provided in the tender dossier.
 - The equipment (software/hardware) suitable for working in Iraq in terms of licensing.

viii. Place, duration, and terms of performance

- 1) Implementation period: **90 days**
- 2) Start date: **July 2026**
- 3) End date: **October 2026**
- 4) Schedule/program: **to be provided by the supplier.**

ix. Required expertise and profile.

A. General professional experience

- 1) At least 2 years of experience in Digital Research and Online Webinar-Training Unit (DRWU) design, installation, and commissioning.
- 2) Must have successfully installed a VC system for a public facility in the past 5 years.
- 3) Certified engineers trained on the proposed VC platform.
- 4) Demonstrate experience in integrating multi-protocol systems.

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- 5) Demonstrate an established local presence (e.g., primary office or branch) within the Mosul region to guarantee the shortest possible service response time.
- 6) The bidding company is required to be legally registered within Iraq in order to operate officially.
- 7) Conduct a mandatory site visit before submission of the proposal.

x. Required Documents and Information.

Mandatory Attachments

- a) Valid company registration and tax clearance certificate.
- b) Authorization letter from the equipment manufacturer (if applicable).
- c) Technical datasheets, drawings, and communication protocols.
- d) Portfolio of the organisation/institution/agency with examples of previous work on similar projects and clients in the last 2 years.
- e) Title/designation of each team member including their CVs.
- f) Conduct a mandatory site visit before submission of the proposal.

All bidders shall submit, along with their technical and financial proposals, the following documents and information. Incomplete submissions may lead to disqualification:

- 1) Company Profile General background, organization structure, and relevant experience in VC Systems.
- 2) Certificates of authorization or partnership with recognized manufacturers.
- 3) Manufacturer Authorization Certificates confirm that the Bidder is officially authorized, trained, and certified.
- 4) CVs of key staff.
- 5) Software capabilities, features, graphical interface, user functions, licensing, and system architecture.
- 6) Relevant product brochures, datasheets, and screenshots.
- 7) Description of software platform, licensing model, and scalability for future expansion. Documentation and software licensing details.
- 8) Warranty and Support: A comprehensive, on-site, post-installation warranty (3–5 years).
- 9) As-built drawings for all VC components, including wiring diagrams, network layouts, and panel layouts.
- 10) Tentative work plan with the number of days and timeframe in line with the above deadlines for deliverables.

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After-Sales Service and Maintenance Plan

Description of warranty services. Five-year preventive maintenance plan including schedule and scope of works. The contract being notified for several years, the homogeneous evolution of all the equipment is planned with this contract.

This evolution concerns both the hardware part, software and accessories. For each of the products and software offered, the Tenderer will list the major hardware and/or software developments already implemented since the date of first commissioning. It will imperatively be indicated the version of the software provided. The Tenderer will specify which hardware and/or software developments are planned, detailing:

- the nature of the expected change,
- the methods of implementation,
- the planned publication date or the planned periodicity,
- the approximate additional implementation cost.

xi. Assignment reports

A report following the model provided must be forwarded by e-mail on conclusion of the assignment: it must correspond with the deliverable summary analytical report ...

xii. Monitoring-evaluation

Performance indicators

Deliverables	Immediate effects	Intermediate effects	Verification sources

Guarantee:

- The Tenderer's offer will specify the exact duration of the guarantee (**minimum 3 years**).
- The starting point of the guarantee period is the date of commissioning of the equipment as stated in the decision to accept the equipment.

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- Interventions lasting more than two working days carried out during the warranty period, postpone the term of the warranty accordingly
- The Tenderer will provide full maintenance coverage "parts, labor and travel" for the entire warranty period.
- The Tenderer will clearly specify, if necessary, the exclusions or the limits of guarantee.

Warranty maintenance:

Preventive and corrective maintenance and regulatory performance checks are carried out by the contractor during the specified warranty period, in accordance with the manufacturer's recommendations. The Tenderer will indicate the assumption of responsibility for the preventive maintenance during the duration of the guarantee.

Out-of-warranty maintenance:

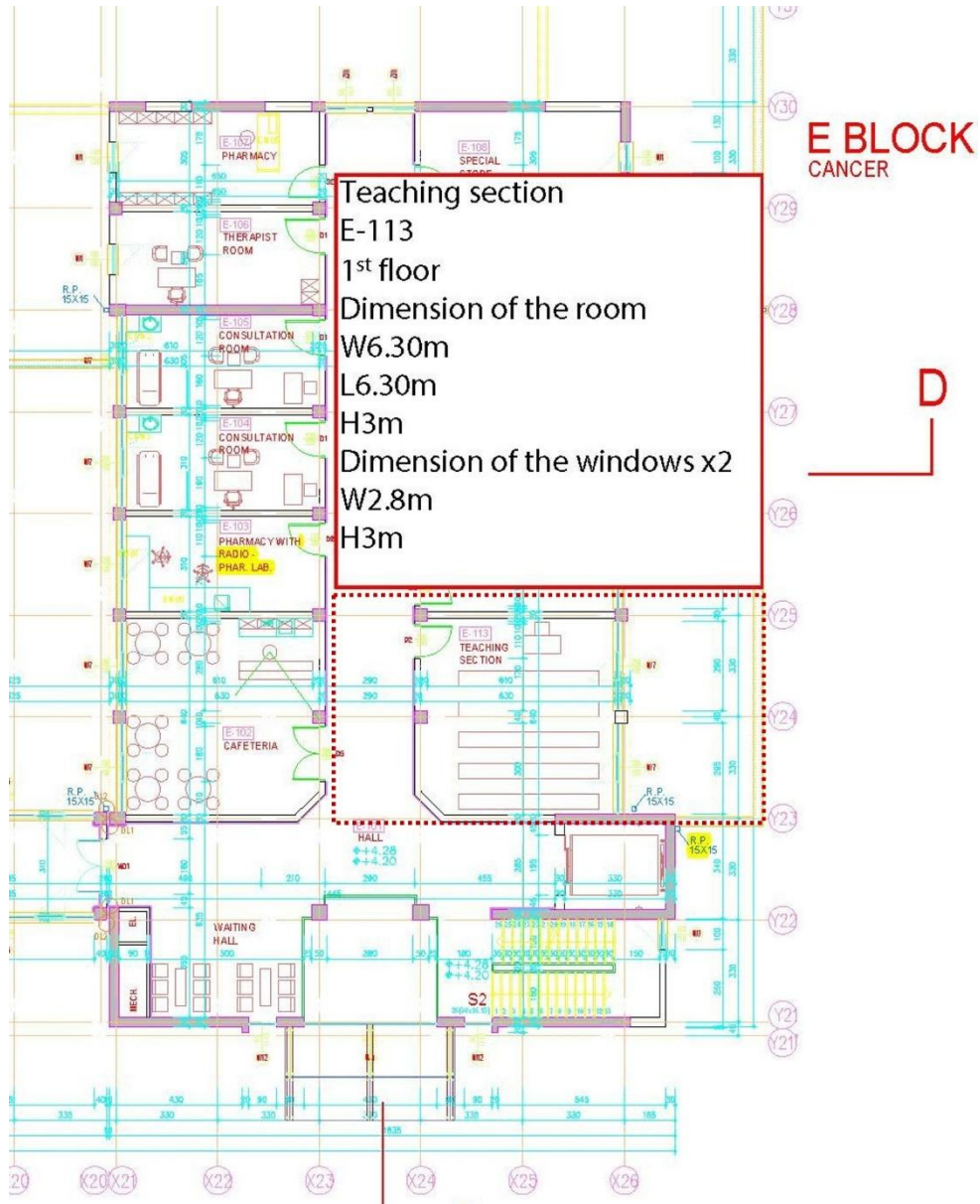
The Tenderer will specify in his offer the elements relating to the support of out-of-warranty maintenance with an offer including:

- Training of the technical team in curative and preventive maintenance of equipment.
- The equipment and conditions of realization necessary for a support by the maintenance service of MRCC.

The services are carried out in partnership with the technical staff of the Biomedical department of the **MRCC** according to their availability. However, MRCC reserves the right to involve the contracting party if necessary. The Tenderers will indicate in his offer the amounts relating to this type of intervention.

Annexes – I

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Annex -II

a. Furniture:

Sl. No.	Specifications Description	Quantity	Bidder Compliance Remarks (Yes/No)
<u>Conference table</u>			
1.	Shape: U-Shape Standard Height: 71-76 cm Width (Depth): 120 -180 cm Length and Seating: 900 cm at least for U-shape table for 12-14 People seating Tabletop: Melamine Faced Chipboard (MFC), laminated MDF, wood veneer, or solid wood. Edges: PVC edge banding or ABS edging. Base/Legs: Epoxy powder-coated steel tube or metal. Wire Management: Integrated wire boxes with power, data, USB, HDMI ports. Cable Trays: Removable or Pop-up or flip-top units with integrated AC outlets, USB-A, USB-C, and HDMI ports for charging devices and connecting peripherals. Finish Options: White, grey, oak, walnut, beech, silver, black.	1	
<u>Conference chair ergonomics</u>			
2.	Dimensions: (seat height 41-54 cm, depth 44-50 cm, width 46-50 cm), support (lumbar, armrests), adjustability (height, tilt, swivel), base type (casters/glides), and materials (mesh, leather, fabric) for comfort during	15	

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	meetings, balancing aesthetics with functionality for various meeting lengths. Lumbar Support: Essential for preventing strain; look for built-in curves or adjustable support. Padding: Comfortable cushioning, often in leather, fabric, or mesh. Armrests: Padded, adjustable, or fixed, allowing shoulders to relax. Adjustability: Pneumatic Height Adjustment: Standard for most models. Tilt/Recline: Synchro-tilt or tilt-lock mechanisms for movement and 360-Degree Swivel: Common for easy movement. Base & Mobility: Five-Star Base: Offers stability. Casters (Wheels): For carpet or hard floors, or glides for fixed placement. Frame: Plastic, polished aluminium, or wood accents. Weight Capacity: Typically (113-136 kg).		
Office desk			
3.	Wooden office desk for moderator Width: 180 cm Depth: 90 cm Height: 74-80 cm Material: Solid wood (oak, walnut, platanna), wood veneer, MDF, or engineered wood. Tabletop Thickness: 25 mm to 32 mm Finish: Natural oil, wax, lacquer, or distressed finishes. Storage: Built-in drawers, or cabinets (ensure enough legroom).	1	

b. Equipment:

Sl. No.	Specifications Description	Quantity	Bidder Compliance Remarks (Yes/No)
Video Conference system (VC)			

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1.	A. <u>Video Specifications:</u> Protocol: H.264. Preferably (HEVC) to support high-resolution content (4K/8K) View/Picture Arrangement: Picture-In-Picture (PIP) or Picture-by-Picture (PBP) (Dual Monitor Emulation) support Resolution: High-Definition Live Video Resolution of 720 p at 25 fps for transmission as well as Reception (at least) Transmission and Reception: HD Content and Presentation Transmission and Reception simultaneously Streaming: H. H.320 videoconferencing Dual Streaming support. IP-based, and web-based video systems often prefer BFCP (Binary Floor Control Protocol) for content sharing, particularly in SIP environments, or use web-native solutions (WebRTC). B. <u>Audio Specifications:</u> Protocols: Opus Codec and/or RTP (Real-time Transport Protocol) Microphone: High Quality Microphone for distance of 4 meters or more. Additional microphone support Audio Quality: Built In Acoustic echo cancellation with noise Reduction C. <u>VC Apps Specifications:</u> - Broadcasting and self-hosted Hybrid events like people joining via telephone and teleconferencing - Control access - Manage file and screen sharing and recordings - Share camera and screen - Manage attendees - Keyboard and Mouse control - Record a session - Manage and share session recordings	1	
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	- Mobile Video Apps can enable meeting attendees to participate in video conferences via their smartphones, tablets or iPads regardless of wherever they're located - Breakout Rooms: Split Your Audience into Several Rooms - Enable RTMP Input in Event - Dial-in to an Event - Using Live Captions in Events - CHAT and Send Direct Messages to Attendees - Set a Timer in Event Room - Block or Unblock Registrants - Add a Virtual Background When Participating in an Event - Noise Cancellation: Your Key to Smooth & Distraction-Free Events - Invite Someone to Participate During Your Event D. Power Specifications: Input Voltage: 220-230 +/- 5% Input Power Frequency: 50 Hz Operability: IP Networks Supporting Static IP as well as DHCP including for IPv6 Ethernet Port: Autosense Ethernet Port NAT/Firewall: Support working behind NAT, Firewall traversal		
Display Unit			
2.	At least 75" Interactive Digital Display include the latest smart features to improve collaboration and create a leading engaging experience for users. 4K Ultra HD picture quality ensures perfect colour and rich detail. They are touch enabled allowing multiple people to use them at once to present, illustrate and share information. Size: 75"	1	

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	Backlight: D-LED Resolution: 3840 x 2160 Brightness: 370cd/m ² (typ.) Contrast ratio: 4000:1 Response Time: 8ms Refreshing Frequency: 60Hz Viewing angle: 178°(H) / 178°(V) Colour Gamut: 85% Display Colours: 1.07B(10bit) System OS: Android 8.0 RAM: 4GB ROM: 32GB Speaker Audio Output Power: 2x15W/8Ω Connectivity Input: HDMI IN x 2, HDMI 2.0-4K x 1, DP IN x 1, OPS (optional) x1, LAN x 1, USB x 4 (1 for Camera), Type-C x 1, Touch x 1, RS232 IN x 1 Output: HDMI OUT x 1, S/PDIF OUT x 1, Audio OUT x1 Sensing Type: Infrared Touch Frame Surface Protection: 4mm Anti-Glare Glass Infrared Touch: ≤20 points Touch Accuracy: 90%(±1mm) Response Time: ≤8ms Minimum Touch Object: ≥2mm		
Speakerphone			
3.	High-quality mics and speakers in one portable device for seamless conference calls, featuring omnidirectional pickup, noise cancellation, and echo reduction (AEC) for clear 2-way audio. - Volume Control button for increase and decrease according to local preferences - Local Microphone Mute/Un-mute button with visual - Plug-n-play device to operate with various Linux OS including Ubuntu Linux & Windows Operating System	1	

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	- Good pickup of about 1.5 meters distance from the Microphone coverage of 360 Degree - Full Duplex Operation (Speak and listen simultaneously) - Frequency response for microphone – 200 Hz – 7 KHz or better - Hi-Fi quality speaker output - Upgradable Firmware - With 3 meters additional USB extension connecting cable Connectivity: USB (Type-A or C), with Bluetooth often available for wireless convenience and mobile device pairing.		
Camera Specifications			
4.	4K EPTZ (Electronic Pan, Tilt, Zoom) conference cameras with Ultra HD video features. Resolution and Frame Rate: 4K UHD (3840x2160) at 30fps (MJPEG, H.264). Sensor: High-quality CMOS sensor, 1/2.5" or 1/2.8" with around 8MP. EPTZ and Zoom: Electronic Pan/Tilt/Zoom with 5-10x digital zoom. Field of View (FOV): Wide angles, commonly 100° to 138°. Connectivity: USB 3.0 (Type-B) for video, power, audio, and HDMI. Audio: Integrated omnidirectional microphones with noise reduction, effective up to several meters. Auto-Framing: AI-driven to automatically frame participants. Plug-and-Play: Driver-free USB operation. Compression: Supports H.264, MJPEG, YUY2, NV12. Installation: Versatile mounting for screens, desks, or tripods.	1	

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	Remote Control: Remote Control functionality with about 7 meters including for PTZ actions.		
All-in-one (AIO) workstation			
5.	High-performance computer with business category OS Processor: Intel Core Ultra 7 (Ultra 7 265) or AMD Ryzen 5/7. RAM: 16GB DDR5 minimum. Storage: 1TB M.2 PCIe NVMe SSD. Display: 27" Full HD (1920x1080) Touch IPS displays. Camera: 5MP IR HDR camera or 4K, often with privacy shutters and AI-based framing. Networking: Wi-Fi 6E or Wi-Fi 7 and Gigabit Ethernet. Ports: USB 3.2 Gen 2/2x2 Type-C, HDMI-in and HDMI-out (to use as a secondary monitor). OS: Windows 11 Pro for business. With Office360 and VC installed AI-Ready Performance: Neural Processing Units (NPUs) for AI-driven background noise cancellation and camera framing (optional). Audio Quality: Built-in speakers with Dolby Atmos and two-way AI noise-cancelling technology. Ergonomics: Height-adjustable stands (HAS) to improve viewing angles during long calls.	1	
UPS			
6.	2 KVA line interactive to backup the VC system and workstation - Output Voltage (On Mains): 230 +/- 5 % with AVR (Automatic Voltage Regulation), 50 hz +/- synchronized with Input Power Frequency - Output Voltage (On Battery): 230 V +/- 3% with 50 Hz	1	

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	- Backup Time: 60 minutes - Battery Type: Maintenance-free sealed Lead- Acid battery with suspended electrolyte: leak-proof - Overload Capacity: 110% - Efficiency: 80% or more - Output Wave type: Quasi Sinewave or better - Transfer Time: < 5 milliseconds - Protections from Surge, Short Circuit, Spikes, DC Under voltage and Overload - Indicators: Mains, On Battery, Charge, Overload - Alarms: Low Battery, Mains Off, Tripping - Audible noise: at 1 meter from surface of unit not more than 50.00 dBA - Output Sockets: 3 joker (accommodate 3 and 2 pin) or more		
Printer			
7.	A4 Laser MFP (Multifunction Printer) Functions: Print, Copy, Scan. Print Speed (ISO, A4): 20-40 ppm. Print Resolution: Up to 1200 x 1200 dpi for sharp text and images. Paper Handling: Standard A4 support, input trays (250+ sheets), multipurpose trays, and automatic duplex printing. Automatic Document Feeder (ADF): Standard for multi-page scanning/copying. Scanner: Flatbed + ADF; enhanced resolution up to 4800 dpi; scan to PDF, JPEG, TIFF. Connectivity: USB, Ethernet, Wi-Fi, Wi-Fi Direct for flexible setup. Memory (RAM): 256MB to 2GB. Processor: 600 MHz to 1GHz+. Control Panel: 2.7-inch colour touchscreen. Mobile Printing: AirPrint, Mopria, HP Smart App support.	1	

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Cables and extensions			
8.	- HDMI Cable of 10 meters or more	1	
	- VC Unit to external computer system – VGA	1	
	Data Cable of 5 meters or more	1	
	- Power extension cable of 10 meter with Wire Gauge (14-AWG), 4 AC Connector and 2-USB Types.	1	
All the above specifications should be read as equivalent or higher			

c. **Auxiliaries:**

Sl. No.	Specifications Description	Quantity	Bidder Compliance Remarks (Yes/No)
1.	Lighting: Adjustable lighting to minimize glare and enhance visibility, including dimmer switches to accommodate video conferencing needs.	1	
2.	Room Booking System: A digital or physical calendar and signage outside the room to indicate availability and schedule meetings.	1	
3.	Whiteboard or Collaboration Tools: A traditional whiteboard or a digital one for note-taking and brainstorming sessions, possibly with screen-sharing capabilities.	1	