Tender Document

LUMS

TENDER NO. LUMS/319/2026 DATED: 19.11.2026 for "Descon and Atlas Smart Classrooms AV"

Last Date for submission of bids	**2/12/2026 till 03:00 Pm**
Opening of bids	**2/12/2026 at 03:30 Pm**

Lahore University of Management Sciences (hereinafter called LUMS) invites sealed bids for the supplies as per attached BOQ on Single stage two envelope basis.

If you have doubt as to the meaning of any portion of the specification or other terms and conditions, you may seek clarification of the same in writing from us.

You are required to submit your bid, which will bear words "CONFIDENTIAL" and

TENDER NO. LUMS/319/2026 DATED: 19.11.2026 for "Descon and Atlas Smart Classrooms AV"

Description

Descon and Atlas Smart Classrooms AV Tender Document

1. General Specifications:

1. Far-site participants should be able to participate in class via Zoom, Skype, MS Teams, or any other video conference platform.
2. The instructor should be easily visible to the far-site participants.
3. Far-site students should be able to see the instructor, content, and boards of the classroom.
4. Far-site participants should be viewable on the back wall screen/LED/Video Wall with a properly visible image size. We are initially planning for 25-30 far-site students.
5. One camera should track the instructor during the class/session.
6. The instructor should have an option to connect his own MacBook or Laptop.

7. Auto-tracking buffer time settings should be adjustable.
8. System availability logs to resolve any dispute that arises for the far-site participant(s).
9. Far-site participants should get an HD video and good quality audio.
10. Local Audio Reinforcement is mandatory and should be adjustable.
11. Overall, IP-based system management and operation monitoring and reporting capability.

2. Consolidated Technical Specifications

The bidder shall design, supply, install, configure, integrate, test, and commission a complete turnkey Hybrid Classroom solution that is fully compatible with Zoom Rooms. The solution shall include:

1. Min. 20x NDI Professional Dual-Lens AI Auto-Tracking with IP/HDMI/USB/ NDI. Primary PTZ + Wide Angle Lens; supports Picture-in-Picture (Pip), Picture & Picture (PaP) for Instructor Tracking (2); apart from IR, it should support the required serial protocols, be compatible with Android, Apple, and IOS devices, be mountable (no tabletop versions), and be capable of IP streaming as well.
2. Min. 30x NDI 4K PTZ camera with NDI for student tracking (2)
3. Video Distribution System for HDMI Routing, Switching & Distribution: Zoom, Streaming, Recording, Mixing.
4. Professional wireless microphone system (Lapel x4) for the instructor, Handheld microphones for Panelists and student Q&A (7), provision for future expansion or as per site requirement, supporting all microphones with simultaneous channels, AES-128 encryption, all microphones including handheld and lapel, hot-swappable transmitters, software management, and external networked antennas;
5. Wired Gooseneck microphones with shock mount (6), wired gooseneck microphone flush-mounted in seat (43).
6. Wireless Gooseneck Microphones (10), provision for future expansion or as per site requirement, supporting all microphones with simultaneous channels, AES-128 encryption, all wireless gooseneck microphones, hot-swappable transmitters, software management, and external networked antennas;
7. Professional DSP supporting Acoustic Echo Cancellation (AEC), automatic mixing, noise reduction, feedback suppression, AGC, USB audio, camera triggering, Ethernet management, Zoom/MS Teams integration. It should also be configured as a mix-minus setup.
8. Commercial-grade 4K displays (85-inch x5) (75-inch x1) including left and right side (if mentioned in plan) and rear displays;
9. Professional ceiling/wall mount speakers or both ceiling + wall-mount as per plan, digital amplifiers, and complete audio distribution;
10. Wireless presentation system supporting Enterprise-Grade; 4K Dual-Band, Native app free support for Windows/macOS/iOS, Android (Wi-Fi Miracast/Apple Airplay/Google Cast); with 3.5mm analog audio out; Multi-View: Allows up to 4 simultaneous presenters on a split screen. Allows separation of guests and employees through multi-network architecture;

11. Wired Connectivity at the instructor desk with all AV control support for all types of operating systems: Windows, Mac OS.
12. Centralized AV control processors, cameras, microphones, audio, source selection, and Zoom control; Lecture recording.
13. Complete AV racks, structured cabling, HDMI fiber, accessories, programming, testing, commissioning, user training, as-built documentation, and a minimum one-year comprehensive warranty. Equivalent or higher specifications shall be acceptable. The bidder shall be an OEM-authorized AV System Integrator with at least 10 years' experience and at least 5 similar completed projects.
14. The proposed solution should be fully compatible with Zoom Rooms and Microsoft Teams Rooms. It shall support seamless hybrid teaching and learning, enabling simultaneous participation of in-room and remote attendees with integrated audio, video, content sharing, collaboration, and lecture delivery capabilities.
15. Any civil work, PVC conducts as per site requirements, cabling, and their cost will be borne by the vendor.

2. Bill of Quantities (BoQ)

Sr. No.	Item Description	Qty.
1	Commercial 4K Displays (85") Bezel-less and sleek from the back, containing video management software	5
2	Commercial 4K Displays (75") Bezel-less and sleek from the back, containing video management software	1
3	Multimedia Laser Projector 6200 Lumens with two-year warranty	1
4	Multimedia Laser Projector 40k lumens 34’ wide screen with two-year warranty or 30k lumens with 28’ wide screen with two-year warranty, or SMD Screen 28’ to 34 feet wide w/controller to handle auditorium multiple inputs with five years warranty along with its software for re-adjustment and setting	1
5	Projection Screens with a size of 140" wide; diagonal image: 160” Tab-Ten-Tensioned 151” (12.58ft) black drop	1
6	20x NDI minimum: Professional Dual-Lens AI Auto-Tracking with IP/HDMI/USB/ NDI. Primary PTZ + Wide 9 sets Angle Lens; Supports Picture in Picture(PiP), Picture & Picture (PaP)	1
7	Min: 30X NDI 4K AI PTZ Camera w/ NDI	4

8	Min: 30x NDI Dual Lens Professional 4K, Dual Lens AI Auto-Tracking with IP/HDMI/USB/ NDI; Wide-Angle; 3.5mm Audio In/Out	1
9	6.5" Ceiling Speakers: 60W @8 Ω w/ Back Can	8
10	8"/1" On-Wall Speakers: 70-80W @8 Ω On-Wall	8
11	6.5"/1" On-Wall: 60W @8 Ω; Sensitivity 92dB; SPL 109dB	3
12	8"/1.5" On-Wall: 200W @8 Ω; Sensitivity 93dB; SPL 119dB	4
13	10"/2" On-Wall: 250W @8 Ω; Sensitivity 94dB; SPL 121dB	28
14	Line-Arrays: Active Self-Powered 3-Way Line-Array Speakers; w/ LF/Mid/HF Drivers & Active DSP Subwoofer 15"; Min 1800W Power; Min SPL 127dB; Complete with w/ ceiling Mount/Rigging. (For PA/Seminar/Live Events & as Main LCR Movies etc)	3
15	16-Ch (8/4 Ω): 16 x 75W@8 Ω, 150 W/Ch @ 4 Ω with 2 Bus Inputs/Outputs: DSP Amp w/ Ethernet	1
16	4-Ch (8/4 Ω): 4 x 125 W @ 4 Ω, 2 x 250 W @ 8 Ω	1
17	4-Ch (8/4 Ω) 4 x 500 W @ 4 Ω, 2 x 1000 W @ 8 Ω: DSP Amp w/ Ethernet	4
18	2-Ch (8/4 Ω) 2 x 500 W @ 4 Ω, 1 x 1000 W @ 8 Ω: DSP Amp w/ Ethernet	14
19	Microphones: Lapel Mic 60W w/ Back Can	4
20	Handheld Microphone dual Channel	9
21	Wired Gooseneck Mics with Shock mount	6
22	Flush-mounted In-Seat (Descon Aud)	43
23	Wireless Gooseneck microphones	10
24	External Antennas	2 setups
25	Professional DSP: 12x8 AVB/DANTE w/ AEC, USB Audio Mix minus setup, AEC / Feedback Suppression / Tail Length > 250 msec, ideally 300 msec	9
26	Dolby Cinema Surround 7.1 Ch AV Processor: 7.1 Ch AV Processor & Receiver with 2 HDMI Out and analog audio out	1
27	Wireless Presentation Device: Enterprise-Grade; 4K Dual-Band, Native app free support for Windows/macOS/iOS, Android (Wi-Fi Miracast/Apple AirPlay/Google Cast); with 3.5mm analog audio out. Multi-View: Allows up to 4 presenters on a split screen simultaneously. Allows separation of guests and employees through multi-network architecture	2
28	4K Matrix Switching & Routing System: Dual-Display Setup w/ BYOD for UC Functionality * Touch Panel Control * Supports Multiple Cameras & Multi-Camera AI	2

	Auto Switching * Allows USB Extension with 4K for USB-C x2; 1. Switching of 4-5 Inputs 2. Zoom Dual-Display Capability 3. Presenter Laptop (USB-C) 4. Resident Computer (USB-C) with Touch Monitor 5. USB-C connectivity for 4K video, audio, and high-speed power delivery 6. Room Peripherals such as Camera, microphones, and Speakers should be available via USB-C to both computers (Presenter Laptop, Resident Computer) for Zoom calls * USB-C Power Delivery (PD) up to 100W *USB-C x2, USB-B x2, HDMI In x2, HDMI Out x2, USB-A x4, RJ-45, RS-232, Link Port	
29	Touch Monitor	2
30	Small Monitor	1
31	HDMI Routing, Switching & Distribution: Zoom, Streaming, Recording, Mixing, Cameras with Matrix Switching/Distribution for: 5 Displays (Descon Auditorium), Matrix SW, Atlas Auditorium Displays, Matrix SW	2 Setups
32	Video Mixer:	2 Setups
33	Recording / Streaming / Layout Device HDMI w/ 3.5mm Audio & 4TB HDD	2 sets
34	Room AV Controller: AV Controller with enough Ports/Relays to control a) AV equipment, b) Projection Screen(s), c) Motorized Blind(s), d) Lighting control of each room.	2 setups
35	10.1" Touch Panel	2 setups
36	iPad Interface for Atlas Auditorium	1 Set
37	PC Control: Required PC control in the control room	1 set
38	Lighting Control Sys: 1. DALI Lighting Controls for lights (UPS / Wapda) with three (3) Separate DALI Universes; 2. Wall Keypad(s) 3. Automatic Light & Motion Sensor(s) 4. DMX Color Control	2 setups
39	Projector Screen Control: Required (separate for each screen)	2 setups
40	Blinds Control:	2 setups
41	Wireless Music Streaming: Single Zone Wireless Music Streamer over WiFi. Native AirPlay, Google Cast, Spotify, etc	1
42	AV Sources (Additional): Apple TV + Chromecast	2
43	AV Plates: Dual USB-C, Table / Podium AV Plate	2
44	Dual-RJ45 Floor AV Plate	1 set
45	2x RJ45 +2 XLR Floor AV Plate	1 set
46	HDMI Podium 2 Plate w/ HDMI	1 set

47	USB-C + HDMI Control Room Wall Plate w/ USB-C + HDMI	1 set
48	3 x RJ45 + 2 XLR Floor Plate 1 & 2 each with 3 x Cat6/RJ45 & 2 XLR	2 set
49	4 x XLR Wall Plate Stage DJ w/ 4 x XLR connectors	1 set
50	3 x 5Pin XLR DMX Wall Plate w/ 3 x 5 Pin XLR connectors (M&F as needed)	1 set
51	24U: 24U AV Rack w/ 2 PDU(s) and Required Shelves/Trays, Patch Panel	1 lot
52	40U: 40U AV Rack w/ 3 PDU(s) and Required Shelves/Trays, Patch Panel	1 lot
53	Network 16-Port PoE+ Switch	3
54	WiFi Gigabit Router	2
55	Wireless Access Point	1
56	USB Cables	1 lot
57	Cables and accessories: All associated cables, accessories, interconnect cables, HDMI patch cables, user Patch cords, etc	2 lots

Note: The quantities specified in the Bill of Quantities (BoQ) are indicative only and may be increased or decreased based on the final approved design, site conditions, detailed engineering, and the proposed solution. The bidder shall be responsible for providing a complete, fully functional, and integrated solution in accordance with the technical requirements of this RFP.

4. Vendor evaluation & responsibilities:

1. The bidder shall provide a complete turnkey solution covering the design, supply, installation, integration, programming, testing, commissioning, training, warranty, and support of the proposed Hybrid Classroom solution. Partial or incomplete solutions should not be considered and may result in disqualification.
2. Before submitting the proposal, bidders shall conduct a detailed site survey and requirement gathering exercise to validate the University's requirements and existing infrastructure. The technical and commercial proposal shall be based on the findings of this assessment. Any incompatibility, integration issues, omissions, or additional components required to deliver a fully functional solution shall be the sole responsibility of the bidder at no additional cost to LUMS.
3. The proposed solution shall be officially supported and verified by the respective Original Equipment Manufacturer (OEM). The bidder shall submit valid OEM Authorization Letters and support documentation confirming compatibility and support for the proposed solution.
4. The bidder shall provide documentary evidence of the technical competence of the proposed deployment team, including the profiles, certifications, and relevant experience

of the Project Manager, Design Engineers, Implementation Engineers, and Technical Support Engineers assigned to the project.

5. The bidder shall clearly specify the product release date, End-of-Sale (EOS), End-of-Support (EOL), and expected product lifecycle for all major hardware and software components proposed under this project.
6. The quantities and/or models specified in the Bill of Quantities (BoQ) are indicative only. They may be increased, decreased, or substituted with equivalent or higher models based on the approved design, budget availability, product availability, and project requirements.
7. LUMS expects bidders to offer their best educational pricing and discounts applicable to higher education institutions. The commercial proposal should clearly identify any educational, academic, or institutional discounts offered.
8. The contract shall be awarded to the lowest evaluated responsive bidder whose proposal substantially complies with the technical specifications, functional requirements, compatibility, solution quality, warranty, support commitments, and commercial terms specified in this RFP. LUMS reserves the right to reject any proposal that does not fully meet the mandatory technical requirements, irrespective of its commercial value.
9. Bidders may seek technical clarifications regarding this RFP from the Information Systems & Technology (IST), LUMS, before the proposal submission deadline. No clarification requests shall be entertained after the prescribed deadline.
10. The selected vendor must provide complete documentation of the proposed/installed solution, including general configuration and technical details. The vendor must also provide the program/configuration file to LUMS for future reconfiguration needs.
11. A comprehensive classroom/instructor led technology enablement training for two people, either locally or internationally, as required, to ensure effective operation, configuration, and maintenance of the installed system. All the associated expenses will be borne by the bidder.
12. The deployment, commissioning, and installation should be less intrusive and take minimal time; preferably, it must be completed over the weekends.

TERMS AND CONDITIONS

1. Instruction to Bidders:

a) **General:** Bids are invited through Sealed Envelope for the purchase of supplies and other related items from the authorized distributors and manufacturers on delivery Ex-LUMS.

b) **Bill of quantities:** The bidder may quote for one or more items showing description and specification of offered items.

c) **The vendor is required to quote in PKR currency and delivery is on Ex-LUMS(DDP) basis.**

2. Date &Time of Submission of Tenders:

The interested bidders may submit their bids on the prescribed form, available on written request on the firm / company letter pad from the Procurement office located, Lahore University of Management Sciences, at Opposite Sector U, DHA Lahore along with a postal order/pay order/bank draft / amounting to Rs. 2,000/- (Non-refundable) drawn in favor of Lahore University Of Management Sciences.

All bids must be delivered in procurement office on or before the prescribed deadline of 03:00 pm on the date already mentioned above.

Any Bid received by LUMS after the prescribed deadline for submission of bids will be returned unopened to the Bidder.

3. Sealing and Marking of Bids:

The bids shall comprise in a Single package containing two separate envelopes each envelope shall contain separately, duly sealed, the "Financial Proposals" and "Technical Proposals". The envelopes shall be marked as "Financial Proposals" and "Technical Proposals" in bold and legible letters to avoid any confusion.

The envelop will be addressed to;
Manager Procurement
Lahore University of Management Sciences,
Opposite Sector U, DHA,
Lahore
TEL: (042)35608246

The envelopes shall also bear the word "CONFIDENTIAL" and following identifications: -
If the envelope is not marked, as instructed above, LUMS will assume no responsibility for the misplacement or premature opening of the bid.

4. Bid Opening:

LUMS will open the bids, in the presence of Bidder's representatives who choose to attend at 03:00 pm on the date already mentioned above, in the Procurement office.

5. Evaluation:

a) After opening of bids, LUMS will examine the bids for technical evaluation and completeness of the bids as per tender document.

b) The bids shall be evaluated on the basis of "Technical proposals" and "Financial Proposals" as under:

(i) The envelope for "Technical Proposals" will be opened initially in the presence of the bidders.

(ii) The envelope for "Financial Proposals" will be retained unopened.

(iii) The "Financial Proposals" envelope of technical responsive bidders will be opened in front of technically qualified bidders after the technical evaluation. The "Financial Proposals" envelope of technically non-qualified bidders will be returned unopened to the bidder.

c) Bidder(s) who do (es) not qualify cannot challenge the findings of the evaluation or ask for reasons of disqualification.

6. Earnest Money:

The bidder must enclose 2% of the total quoted amount as earnest money in shape of pay order/bank draft in favor of Lahore University of Management Sciences. The tenders without earnest money or containing less earnest money will not be accepted. Earnest money of the successful bidder will be refunded after the delivery of the goods.

7. Change in Quantities:

LUMS reserves the right to increase/decrease quantities and it will be the responsibility of the supplier/contractor to deliver the item on time and change defective items.

8. Mode of Payment:

a) Payment terms will be credit basis.

b) In case of advance payment first class bank guarantee or mutually accepted collateral will be provided by the bidder.

9. NTN/GST Certificate:

Bidder must mention their National Tax Number (NTN) and General Sales Tax (GST) number (if sales tax registered) and furnish a copy of NTN and GST certificate along with tender.

10. Tax Deduction:

Income Tax as per government tax rules will be deducted from the total amount unless an exemption certificate is provided from the income tax department.

11. Specification Criteria:

All bids must be submitted according to specification given in the BOQ.

12. Delivery Time:

a) Validity period of the tender will be mutually decided from the date of placement of order. During this period successful bidders will be bound to supply the items on the rates they quoted.

b) In case the supplier fails to supply the agreed material in time, LUMS reserves the right to reject its offer and confiscate the earnest money deposited.

c) Delivery will be on Ex-LUMS

d) Pre-shipment inspection will be done by LUMS if required.

13. Inspection and Testing

a) LUMS representative shall have the right to inspect and / or test the Goods to confirm their conformity to the Purchase order(s) Specifications.

b) Should any inspected or tested goods fail to conform to the specifications, LUMS may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet specification of LUMS. All costs incurred on such replacements / alterations shall be entirely borne by the supplier, failing to do so, the purchase order(s) will be cancelled and all retained values will be forfeited in favor of LUMS.

14. Quality of items:

All item(s) supplied by successful bidder should be wholesome and include all the basic accessories. The additional accessories may be included separately. The offered items(s) should not be of substandard nature.

15. Warranty:

As mentioned against each item or for the given period starting from the date of supply.

16. Penalty:

<u>For failure to comply with delivery schedule of Purchase Order(s) penalty will be imposed on defaulting bidder as under:</u>

a) 1% of the cost of entire order or of such items/job as remains un-supplied/not-completed for every day up to maximum of 5% for 10 days exceeding the delivery period unless mutually agreed in writing.

b) If the material is not supplied even after payment of penalty for 10 consecutive days LUMS reserves the right to cancel the purchase order and to obtain the required

items/get the job done from elsewhere at risk and cost of the defaulting contractor. In this scenario the Earnest money will be confiscated.

17. Grievance Committee

Supplier can contact the grievance committee of LUMS if required.

18. Rejection of Bids:

LUMS reserves the right to reject any or all bids or proposals without assigning any reason.

19. Other Instructions:

a) Bid Prices shall be quoted on Annexure-"A" and also on letter Head duly filled in, stamped and signed by the authorized representative of Bidder.
b) Bidding Form Annexure-"B" must also be duly filled in, stamped and signed by authorized representative of Bidder.
c) Quoted price shall be valid for three months from the opening date of the Tender, for placing order however, any subsequent change in taxes and duties as notified by government will be given due consideration

I/We hereby agree to abide by and fulfill all the terms and conditions of the contract.

The sum of Rs._____ is herewith forwarded in the shape of _____as 2% earnest money.

Name and Address of the Firm **Company's Stamp**

_____

_____

_____

Name and Signature of company's Representative

_____

_____

CNIC: _____

ANNEXURE "A"
FINANCIAL PROPOSALS

S. No.*	**Name of Item**	**Qty**	Ex-LUMS(DDP)	**Total Price**	**Remarks**

* S.NO as mentioned on BOQ

Authorized Signature of Bidder with seal

stamp_____

Full name of firm _____

N.I.C. No. _____

Phone no. _____ Mobile No._____

ANNEXURE-"B"

TECHNICAL PROPOSALS

S. No.*	Name of Item(s)	Specifications / Brand	Qty

* S.NO as mentioned on BOQ

Authorized Signature of bidder with seal stamp

_____

Full name of firm _____

N.I.C. No. _____

Phone no. _____ Mobile No._____

Note: Attach technical brochure producing detailed specifications for all the offered items(s).

BIDDING FORM

Date: _____

Lahore University of Management Sciences.
Lahore

Gentleman

1. Having examined the conditions to Tender and Specifications of Tender No LUMS/319/2026 DATED: 19.11.2026, the receipt of which is hereby acknowledged. We the undersigned, offer to supply and deliver in conformity with specifications mentioned in BOQ and conditions of Tender for the sum of Rs._____ (Rupees _____) or such other sums as may be ascertained in accordance with the said Conditions.

2. If our Bid is accepted, we shall deliver the required supplies mentioned in the tender documents within _____ days from the date of receipt of your firm Purchase Order.

3. We agree to abide by the terms and conditions of the Tender for the period of _____ from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

4. Until a formal Purchase order(s) is placed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

5. We understand that you are not bound to accept the lowest or any proposal you may receive or to inform us of the rejection of our bid or to give any reasons thereof.

Dated this _____ day of _____ 2026.

Signature _____ in the capacity of _____ duly authorized to sign Tender for and on behalf of

_____
(NAME OF FIRM IN BLOCK CAPITALS)

Complete Address: _____

Fax No._____ Telephone No._____

(SIGNATURE)
Witness :-1. _____ 2_____