

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSION SYSTEMS CENTRE, VALIAMALA (LPSC)
THIRUVANANTHAPURAM**

Tender for AV FACILITY IN EPS BUILDING

Bids to be submitted online

Tender No.: LPSC/LVF/LP202300082101 dated 07-11-2023

A. Tender Details

Tender No :	LPSC/LVF/LP202300082101
Tender Date :	07-11-2023
Tender Classification:	GOODS
Purchase Entity :	LVF
Centre :	LIQUID PROPULSION SYSTEMS CENTRE, VALIAMALA (LPSC)

AV FACILITY IN EPS BUILDING

For and on behalf of the President of India, the Head, Purchase & Stores, Liquid Propulsion Systems Centre (LPSC), Valiamala, Thiruvananthapuram invites tenders for Supply, Installation and Configuration of AV FACILITY IN EPS BUILDING through e-procurement mode;

Prospective vendors interested in participating in the tendering process need to get registered in the portal. Offers submitted through our online portal only will be considered and no other means will be considered. Detailed instruction, pre-requisites and illustrative tutorials for bid enrollment, preparation etc are available in the portal. A help desk is also functioning to assist the vendors whose contact details are available in the portal.

This being a two part tender, Technical and Price Part are opened separately, the tenders should not attach any documents containing Pricing information along with Technical Bid. Normally we do not open PART-II (Commercial Offer), if PART-I (Technical Offer) does not meet with our technical specification requirements.

A.1 Tender Schedule

Bid Submission Start Date :	07-11-2023 17:36
Bid Clarification Due Date :	14-11-2023 14:00
Bid Submission Due Date :	05-12-2023 14:00
Bid Opening Date :	05-12-2023 14:30

Price Bid Opening Date :

29-12-2023 14:30

B. Tender Attachments

Technical Write-up/Drawings

Document : [Annexure Ia- Detailed specifications](#)

Document : [Annexure Ib- Scope of work](#)

Document : [Annexure IV- Compliance matrix](#)

Instructions To Vendors

4. INSTRUCTIONS TO INDIGENOUS TENDERERS

1. a) As far as implementation of provision for Public Procurement (Preference to Make in India) Order, 2017 is concerned, the Office orders vide No. P-4502/2/2017-B.E-II dt 15.06.2017, which is partially modified by Order No.P-45021/2/2017-PP (BE-II) dt 28.05.2018, Order P- 45021/2/2017-PP (BE-II) dt 29.05.2019, Order No. P-45021/2/2017-PP (BE-II) dt 04.06.2020 and Order No. P-45021/2/2017-PP (BE-II) 16.09.2020 and subsequent Amendments issued by the Department of Promotion of Industries and Internal Trade, Ministry of Commerce and Industry regarding Class-I/Class-II local suppliers, Purchase preference, verification of local contents etc shall be applicable to this tender. Therefore, bidders are requested to ensure compliance of the same while submitting tenders. b) Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs. Such MSE s shall produce documentary proof of registration as per provisions of the Policy ie: registration with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Industries Board (KVIB) or Coir Board or National Small Industries Commission (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar Memorandum or any other body specified by Ministry of MSME.

2. Applicable Law: - The Contractor shall be interpreted, construed and governed by the Law of India.

3. Bank Details :- The offer should contain Bank details viz., Bankers Name, Address, Phone No. & Mail id, Bank Account No., IFSC code, PAN No., GST No., etc.

4. Contractors Default Liability :- The purchaser may upon written notice of default to the Contractor terminate the Contract in whole or in part in circumstances detailed hereunder: a) If in the judgement of the Purchaser the Contractor fails to make delivery of Stores within the time specified in the Contract/agreement or within the period for which extension has been granted by the Purchaser to the Contractor. b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this Contract.

5. Counter Terms and Conditions of suppliers: - Where counter terms and conditions / printed or cyclostyled conditions has been offered by the Supplier, the same shall not be deemed to have been accepted by the Purchaser unless specific written acceptance thereof is obtained.

6. DELIVERY AND LIQUIDATED DAMAGES (LD) :- (a) The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed on or before the specified dates. (b) Should the Contractor fail to deliver the stores or any consignment thereof within the period prescribed for such delivery, the purchaser shall be entitled at his option either. (i) to recover from the Contractor as agreed liquidated damages and not by way of penalty, a sum of 0.5% per week of the price of any stores which the Contractor has failed to deliver as aforesaid or during which the delivery of such store may be in arrears subject to a minimum of 10%, or (ii) to purchase from elsewhere, without notice to the Contractor on the account and at the risk of the Contractor, the stores not delivered or others of a similar description (where others exactly complying with the particulars, are not, in the opinion of the purchaser, readily procurable, such opinion being final) without cancelling the Contract in respect of the consignment (s) not yet due for delivery, or (iii) to cancel the Contract or a portion thereof and if so desired to purchase or authorise the purchase of stores not so delivered or others of a similar description (where others exactly if complying with the particulars are not, in the opinion of the purchaser, readily procurable, such opinion final) at the risk and cost of the Contractor. In the event of action being taken under sub-clause (ii) & (iii) of clause 15 (b) above, the Contractor shall be liable for any loss which the purchaser may sustain on that account, provided that the re-purchase or if there is an agreement to re-purchase then such agreement is made within six months from the date of such failure. But the Contractor shall not be entitled to any gain on such re-purchase made against default. The manner and method of such re-purchase shall be at the discretion of the purchaser, whose decision shall be final. It shall not be necessary for the purchaser to serve a notice of such re-purchase on the defaulting Contractor. This right shall be without prejudice to the right of the purchaser to recover damages for breach of Contract by the Contractor.

7. Delivery Period :- The time for and the date / period of delivery of the stores stipulated in the Tender / Purchase Order shall be deemed to be the essence of the contract and delivery must be completed on or before the specified dates.

8. Delivery Term :- Ex-Works / FOR LPSC

9. Extension of Time: - If the completion of supply of Stores is delayed due to reason of FORCE MAJEURE such as acts of God, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, strikes, and freight embargoes etc., the Contractor shall give notice within 15 days to the Purchaser in writing of his claim for an extension of time. The Purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to the other terms and conditions of the Contract.

10. Guarantee & Replacement :- a) The Contractor shall guarantee that the stores supplied shall comply fully with the specifications laid down, for material, workmanship and performance. b) For a period of twelve months or for a period as specified in the tender document after the acceptance of the stores, if any defects are discovered therein or any defects therein found to have developed under proper use, arising from faulty stores design or workmanship, the Contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 14 months from the date of acceptance thereof by the purchaser who shall state in writing in what respect the stores or any part thereof are faulty. c) If, in the opinion of the purchaser, it becomes necessary to replace or renew any defective stores such replacement or renewal shall be made by the Contractor free of all costs to the purchaser, provided the notice informing the Contractor of the defect is given by the purchaser in this regard within the said period of 14 months from the date of acceptance thereof. d) Should the Contractor fail to rectify the defects, the purchaser shall have the right to reject or repair or replace at the cost of the Contractor the whole or any portion of the defective stores. e) The decision of the purchaser notwithstanding any prior approval or acceptance or inspection thereof on behalf of the purchaser, as to whether or not the stores supplied by the Contractor are defective or any defect has developed within the said period of 12 months or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor. f) All the replacement stores shall also be guaranteed for a period of 12 months from the date of arrival of the stores at purchaser's site.

11. Indemnity:- The Contractor shall warrant and be deemed to have warranted that all stores supplied against this Contract are free and clean of Infringement of any Patent, Copy right or Trade mark and shall at all times indemnify the Purchaser against all claims which may be made in respect of stores for infringement of any right protected by patent, registration of design or trade mark, and shall take all risk of accident or damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfilment of the Contract.

12. Language and Measures :- All documents pertaining to the Contract including specification, schedule, notice, correspondence, operating and maintenance instructions, drawings or any other writings shall be written in English Language. The metric system of measurement shall be used exclusively in the Contract.

13. Mode of Despatch :- For supplies BY ROAD / BY RAIL:- The Contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods despatched. The consignment should be despatched with clear Railway Receipt/Lorry Receipt. If sent in any other mode, it shall be at the risk of the Contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis. Purchaser shall pay for only such stores as are actually received by them in accordance with the Contract. The Contractor will be held responsible for any demurrage / wharfage paid due to non-receipt of documents in time.

14. Offer Validity :- a) For Single Part Tender - Quotation should be valid for 90 days from the date of

opening of the tender or any other period as specified in the tender. b) For Two Part Tender - Quotation should be valid for 120 days from the date of opening of the tender or any other period as specified in the tender. Note :- Offer with validity lesser than that specified is liable for exclusion from the procurement process

15. Packing Forwarding & Insurance:- The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by Rail / Road to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense of the Contractor. b) Insurance : The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Contractor and the Purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

16. Payment :- 100% payment shall be made through RTGS within 30 days of receipt and acceptance of the item at our site against submission of PBG.

17. Performance Bank Guarantee (PBG) :- To fulfil guarantee conditions outlined in clause 2(a) to (e) above, the Contractor shall, at the option of the purchaser, furnish a Bank Guarantee (as prescribed by the purchaser) from a Bank approved by the purchaser for an amount equivalent to 3% of the value of the Contract along with first shipment documents. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.

18. Price : a) Price should be firm and fixed and should be on the basis of FOR, LPSC / delivery at site. The Purchaser will not pay separately for transit insurance, and the risk and cost during transit shall be exclusively the responsibility of the Contractor and the purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract. b) Tenders offering firm prices will be preferred. Where a price variation clause is insisted upon by a tenderer, quotation with a reasonable ceiling should be submitted. Such offers should invariably be supported by the base price taken into account at the time of tendering and also the formula for any such variations. c) Prices are required to be quoted according to the units indicated in the tender. When quotations are given in terms of units other than those specified in the tender form, relationship between the two systems of unit must be furnished.

19. Quantity (QTY) and Unit of Measure (UOM) Quote should be as per the quantity and unit of measure mentioned the tender. If dimensional details are available, the same should also be indicated in your offer.

20. Resolution of Disputes:- Any dispute, disagreement or question arising out of or relating to or in consequence of the contract or to its fulfillment, or the validity of enforcement thereof which cannot be settled mutually, or the settlement of which is not herein specifically provided for, shall within 30 (thirty) days from the date either party informs the other in writing that such dispute or disagreement exists be referred to arbitration by the sole arbitrator. The Arbitrator shall be appointed As per the Indian

Arbitration and Conciliation Act 1996 and proceedings will be conducted in Trivandrum. The Arbitration proceedings shall be conducted in accordance with and subject to the Arbitration and Conciliation Act 1996 (Act 26 of 1996) as amended from time to time and the decision of the Arbitrator shall be final and binding on the parties thereto. Each party shall bear its own cost of preparing and presenting its case. The cost of Arbitration including the fees and expenses of the Arbitrator shall be shared equally by the parties unless the award provides otherwise. Subject to provisions of this clause, the courts at Kerala shall have exclusive jurisdiction. Performance under this Contract shall, however continue during Arbitration proceeding and no payment due or payable by the parties hereto shall be withheld unless any such payment is/or forms a part of the subject matter of the Arbitration proceedings.

21. Security Deposit (SD) :- Applicable for order value above INR 5 L (Including taxes and other charges). On acceptance of the order, the Contractor shall, at the option of the Purchaser and within the period specified by him, deposit with him, in cash or in any other form as the Purchaser may determine, security deposit not exceeding 3 percent of the value of the Contract as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to deposit Security and the Contractor fails to provide the security within the period specified, such failure shall constitute a breach of the Contract, and the Purchaser shall be entitled to make other arrangements for the re-purchase of the stores Contracted at the risk of the Contractor.

22. Specifications:- a) Stores offered should strictly conform to Purchasers specifications. Deviations, if any, should be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotations. Wherever options are called for in our specifications, the tenderer should address all such options. b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.

23. Taxes :- The applicable GST / IGST shall be clearly mentioned in your offer along with HSN code of the offered items. We are eligible for IGST @ 5% as per the Department of Revenue Notification No. 25/2018 Integrated Tax (Rate) Schedule-I; Sl.No.243B dated 31.12.2018 (Amendment to Notification No. 7/2018 - Integrated Tax (Rate) dated 25.01.2018 and Notification No. 1/2017 - Integrated Tax (Rate) dated 28.06.2017

24. Training:- The Contractor shall, if required by the Purchaser, provide facilities for the practical training of Purchasers engineering / technical personnel from India and for the active association on the manufacturing processes throughout the manufacturing period of the Contract / Stores, number of such personnel to be mutually agreed upon.

25. LPSC shall have the right to place part order among the parties for the items for which they are the lowest.

26. Option Clause : The Purchase reserves the right to increase/decrease the Ordered Quantity by up to 25% at any time, till final delivery date (or the extended delivery date of the Contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of delivery period (or the extended delivery period). It may please be noted that, this clause is not applicable for Development Orders.

5. Bidders may please note that Concessional GST of 5% is not applicable for this procurement.(Any clause containing the same may be ignored) All are requested to quote actual GST rates as per HSN code.

C. Bid Templates

C.1 Technical Bid - AV FACILITY IN EPS BUILDING

1. Boundary layer microphone

Item specifications for Boundary layer microphone

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	Condenser microphone	Yes / No / Explain		
2	Acoustic principle	Boundary layer microphone	Yes / No / Explain		
3	Pickup pattern	Cardioid	Yes / No / Explain		
4	Sensitivity	10 mV / Pa or better	Yes / No / Explain		
5	Frequency response	100 Hz to 15 kHz or better	Yes / No / Explain		
6	Maximum sound pressure level	117 dB or better	Yes / No / Explain		
7	Phantom power	48V	Yes / No / Explain		
8	LED indicator	Yes	Yes / No / Explain		
9	Microphone modes	Toggle on/off and Push to mute and Push to talk	Yes / No / Explain		

2. Wireless Handheld microphone

Item specifications for Wireless Handheld microphone

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	Wireless	Yes / No / Explain		
2	Pickup pattern	unidirectional	Yes / No / Explain		

3	Form factor	Handheld	Yes / No / Explain		
4	Transducer type	Condenser	Yes / No / Explain		
5	Audio frequency response (Microphone)	100 Hz to 15 kHz or better	Yes / No / Explain		
6	Channel / frequency selection	Yes	Yes / No / Explain		
7	Power requirement	AA batteries	Yes / No / Explain		
8	Working range	60 m or better	Yes / No / Explain		
9	LED indicator	Yes	Yes / No / Explain		
10	On/off switch	Yes	Yes / No / Explain		
11	Transmitter and receiver units	Both required	Yes / No / Explain		

3. Wireless Microphone (Head worn)

Item specifications for Wireless Microphone

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	Wireless	Yes / No / Explain		
2	Pickup pattern	Unidirectional	Yes / No / Explain		
3	Form factor	Headworn	Yes / No / Explain		
4	Transducer type	Condenser	Yes / No / Explain		
5	Frequency response (Microphone)	100 Hz to 15 kHz or better	Yes / No / Explain		
6	Operating range	90 m or better	Yes / No / Explain		
7	On/off switch	Yes	Yes / No / Explain		
8	LED indicator	Yes	Yes / No / Explain		

9	Transmitter and receiver units	Both required	Yes / No / Explain		
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4. Audio Digital Signal Processor

Item specifications for Audio Digital Signal Processor

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Analog inputs	24 Mic/Line level inputs with individual AEC processing on Phoenix/Combicon removable screw connector and selectable 48V Phantom power	Yes / No / Explain		
2	Analog outputs	16 Mic/Line level outputs on Phoenix/Combicon removable screw connector	Yes / No / Explain		
3	Noise cancellation	Yes	Yes / No / Explain		
4	Frequency response	100 Hz to 15 kHz or better	Yes / No / Explain		
5	RS-232 serial port	Yes	Yes / No / Explain		
6	RJ45 ethernet port	Yes	Yes / No / Explain		
7	Network audio port (AVB/Dante/BLUlink or equivalent)	Yes	Yes / No / Explain		
8	USB audio support	Yes	Yes / No / Explain		
9	One or more DSP units/expanders of the same OEM may be cascaded to support 24 mic / line inputs and 16 mic / line level outputs.	Yes	Yes / No / Explain		

5. AUDIO AMPLIFIER

Item specifications for AUDIO AMPLIFIER

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	Type	One 8 channel Class-D power amplifier or Two 4 channel Class-D power amplifiers may be provided	Yes / No / Explain		
2	Frequency response	100 Hz to 15 kHz or better	Yes / No / Explain		
3	Signal to Noise ratio	90 dB or better	Yes / No / Explain		
4	Output power (8 ohm)	120 watts per channel or better	Yes / No / Explain		
5	Output power (4 ohm)	120 watts per channel or better	Yes / No / Explain		
6	100 V High impedance mode	Yes	Yes / No / Explain		

6. Ceiling Mount Speakers

Item specifications for Ceiling Mount Speakers

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Mount Type	Ceiling mount	Yes / No / Explain		
2	System Type	6 inch full range or better	Yes / No / Explain		
3	Coverage Angle	110 degree conical or better	Yes / No / Explain		
4	Nominal impedance	8 ohm	Yes / No / Explain		
5	Power rating (Continuous/RMS)	30 watts or better	Yes / No / Explain		
6	Transformer Taps (100V)	30w,15w	Yes / No / Explain		
7	Sensitivity(1w,1m)	85 dB SPL or better	Yes / No / Explain		
8	Maximum sound pressure level	104 dB or better	Yes / No / Explain		

7. USB 3.0 peripheral sharing switch

Item specifications for USB 3.0 peripheral sharing switch

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Computer connections	2 or more	Yes / No / Explain		
2	Port selection	Remote port selector	Yes / No / Explain		
3	Connector (Computer)	2 x USB Type B Female or better	Yes / No / Explain		
4	Connector (Device)	4 x USB Type A Female or better	Yes / No / Explain		
5	LED indicators	Yes	Yes / No / Explain		
6	Data rate	5 Gbps or better	Yes / No / Explain		

8. Multimedia Projector

Item specifications for Multimedia Projector

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Technology	LCD or DLP	Yes / No / Explain		
2	Projection Method	Front	Yes / No / Explain		
3	Native Resolution	1920 x 1080 or better	Yes / No / Explain		
4	Brightness	6000 lumens or better	Yes / No / Explain		
5	Throw	Standard throw	Yes / No / Explain		
6	Zoom Feature	Yes	Yes / No / Explain		
7	Aspect ratio	16:9 or better	Yes / No / Explain		
8	Keystone correction	Horizontal & Vertical	Yes / No / Explain		
9	Lens shift supported	Yes	Yes / No / Explain		
10	Type of light source	Laser	Yes / No / Explain		

11	Minimum life of Laser Light Source (in normal mode)	20000 hours or better	Yes / No / Explain		
12	No. of HDMI Input ports	2 or more	Yes / No / Explain		
13	No. of Audio Output ports	1 or more	Yes / No / Explain		
14	No. of LAN ports	1 or more	Yes / No / Explain		
15	HD Base T support	Yes	Yes / No / Explain		
16	Wireless Remote control	Yes	Yes / No / Explain		
17	Power supply	230 V, 50 Hz, Indian standard plug tops	Yes / No / Explain		
18	Ceiling mount kit	Required	Yes / No / Explain		

9. Motorised Projection Screen (Tab Tension)

Item specifications for Motorised Projection Screen

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	Tab Tension Motorised	Yes / No / Explain		
2	Supported Display Technology	1080p or better	Yes / No / Explain		
3	Screen Size (Diagonal)	Minimum: 125 inches Maximum :135 inches	Yes / No / Explain		
4	Aspect Ratio	16:9	Yes / No / Explain		
5	Mounting Type	Ceiling Mount	Yes / No / Explain		
6	Display Fabric Material	Matte white	Yes / No / Explain		
7	Gain	1.1	Yes / No / Explain		
8	Remote controller	Yes	Yes / No / Explain		
9	Type of Remote	Wireless	Yes / No / Explain		

10	Ceiling mount kit and other accessories for installation	Yes	Yes / No / Explain		
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10. LED DISPLAY

Item specifications for LED DISPLAY

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Technology	LED	Yes / No / Explain		
2	Panel Type	IPS	Yes / No / Explain		
3	Screen Size (Diagonal)	74 inches to 75 inches (Both inclusive)	Yes / No / Explain		
4	Resolution (Pixels)	(3840 x 2160) UHD or better	Yes / No / Explain		
5	Aspect Ratio	16:09	Yes / No / Explain		
6	Brightness Nits	400 or better	Yes / No / Explain		
7	Viewing Angle	178:178	Yes / No / Explain		
8	Speakers	Yes	Yes / No / Explain		
9	HDMI port	2 or more	Yes / No / Explain		
10	Audio port	1 or more	Yes / No / Explain		
11	USB port	1 or more	Yes / No / Explain		
12	Ethernet Port	1 or more	Yes / No / Explain		
13	Tiltable Wall Mount Kit (with necessary load bearing capacity) and other accessories for installation	Yes	Yes / No / Explain		

11. LED Display (Interactive)

Item specifications for LED Display

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Technology	LED	Yes / No / Explain		
2	Panel Type	IPS	Yes / No / Explain		
3	Screen Size (Diagonal)	64 inches to 65 inches (Both inclusive)	Yes / No / Explain		
4	Touch Technology	Infrared Touch	Yes / No / Explain		
5	Resolution (Pixels)	(3840 x 2160) UHD or better	Yes / No / Explain		
6	Aspect Ratio	16:09	Yes / No / Explain		
7	Brightness Nits	350 or better	Yes / No / Explain		
8	Viewing Angle	178:178	Yes / No / Explain		
9	Speakers	Yes	Yes / No / Explain		
10	Input Port (HDMI)	2 or more	Yes / No / Explain		
11	Input Port (USB)	2 or more	Yes / No / Explain		
12	Output (HDMI)	1 or more	Yes / No / Explain		
13	Touch Output (USB)	1 or more	Yes / No / Explain		
14	Audio port	1 or more	Yes / No / Explain		
15	Ethernet Port	1 or more	Yes / No / Explain		
16	Touch Interface	Touch sensitive as well as Pen driven	Yes / No / Explain		
17	Touch Response Time	7 ms or better	Yes / No / Explain		
18	Wireless Screen Mirroring Support	Yes	Yes / No / Explain		
19	Floor mounting stand with wheels and other accessories for installation	Yes	Yes / No / Explain		

20	Other Accessories included	Touch Pens - 2 Nos	Yes / No / Explain		
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12. USBs Extender kit

Item specifications for USBs

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Signal range	100 meter or better	Yes / No / Explain		
2	Data Rate	480 Mbps or better	Yes / No / Explain		
3	USB Type-B female connector (Local Unit)	1 no. or more	Yes / No / Explain		
4	RJ-45 female connector for extension line (Local Unit)	1 no. or more	Yes / No / Explain		
5	USB Type-A female connectors for USB device (Remote Unit)	1 no. or more	Yes / No / Explain		
6	RJ-45 female connector for extension line (Remote Unit)	1 no. or more	Yes / No / Explain		

13. CAMERA

Item specifications for CAMERA

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of camera	PTZ	Yes / No / Explain		
2	Sensor	1/2.8 inch CMOS or better	Yes / No / Explain		
3	Resolution	1080p or better	Yes / No / Explain		
4	Frame rate	60 fps or better	Yes / No / Explain		
5	Optical zoom	20X or better	Yes / No / Explain		
6	FOV	54 degree or better	Yes / No / Explain		

7	Horizontal rotation range	±170 degrees or better	Yes / No / Explain		
8	Vertical rotation range	-30 degrees to +90 degrees or better	Yes / No / Explain		
9	Backlight compensation	Supported	Yes / No / Explain		
10	Camera Preset support	Yes	Yes / No / Explain		
11	Video output: HDMI port	1 or more	Yes / No / Explain		
12	Video output: USB 3.0 port	1 or more	Yes / No / Explain		
13	RJ-45 port	1 or more	Yes / No / Explain		
14	Wireless Remote control	Yes	Yes / No / Explain		
15	Wall Mount Kit	Yes	Yes / No / Explain		

14. HDMI to USB CONVERTER

Item specifications for HDMI to USB CONVERTER

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of Device	USB Capture Device with Single input	Yes / No / Explain		
2	No. of Input (HDMI)	1 or more	Yes / No / Explain		
3	No. of Output (USB 3.0)	1 or more	Yes / No / Explain		
4	USB Compatibility	USB 3.0 or higher	Yes / No / Explain		
5	Video input Resolution	3840 x 2160 or better	Yes / No / Explain		
6	Audio Input	HDMI Embedded Audio & 3.5 mm stereo in	Yes / No / Explain		
7	Connecting cables and adapter	Yes	Yes / No / Explain		

15. HDMI Matrix Switcher

Item specifications for HDMI Matrix Switcher

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Inputs	8 HDMI: on female HDMI Connectors	Yes / No / Explain		
2	Outputs	8 HDMI: on female HDMI Connectors	Yes / No / Explain		
3	Resolution	4K @60HZ (4:4:4) or better	Yes / No / Explain		
4	Video	HDMI Support Deep Colour, 3D, ARC, up to 7.1 Uncompressed Audio channel as specified in HDMI 2.0 Content Protection HDCP 2.2	Yes / No / Explain		
5	Maximum data Rate	17 Gbps or better	Yes / No / Explain		
6	EDID Management	Yes	Yes / No / Explain		
7	RJ-45 Ethernet port	1 or more	Yes / No / Explain		
8	RS-232 Port	1 or more	Yes / No / Explain		
9	Stereo balanced Audio Output on a 5-pin Terminal Block Connector	Yes	Yes / No / Explain		

16. HDBase T Transmitter

Item specifications for HDBase T Transmitter

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Inputs	1 HDMI: on a female HDMI connector	Yes / No / Explain		
2	Outputs	1 HDBT: on an RJ-45 female connector	Yes / No / Explain		
3	IR port on a 3.5 mm connector	1 or more	Yes / No / Explain		
4	RS-232 port	1 or more	Yes / No / Explain		

5	Video resolution	4K UHD @60 Hz or better	Yes / No / Explain		
6	Video (Max data rate)	17 Gbps or better	Yes / No / Explain		
7	HDCP 2.2 content protection	Yes	Yes / No / Explain		
8	HDBaseT 2.0 Compliant	Yes	Yes / No / Explain		
9	PoE Remote Powering for Receiver Unit	Yes	Yes / No / Explain		
10	Range	100 meter or better	Yes / No / Explain		
11	Power Adapter Included	Yes	Yes / No / Explain		

17. HDBase T Receiver

Item specifications for HDBase T Receiver

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Inputs	1 HDBT: on an RJ-45 female connector	Yes / No / Explain		
2	Outputs	1 HDMI: on an HDMI connector	Yes / No / Explain		
3	IR port on a 3.5 mm connector	1 or more	Yes / No / Explain		
4	RS-232 port	1 or more	Yes / No / Explain		
5	Video resolution	4K UHD @60 Hz or better	Yes / No / Explain		
6	Video (Max data rate)	17 Gbps or better	Yes / No / Explain		
7	HDCP 2.2 content protection	Yes	Yes / No / Explain		
8	HDBaseT 2.0 Compliant	Yes	Yes / No / Explain		
9	PoE extension supported	Yes	Yes / No / Explain		
10	Range	100 meter or better	Yes / No / Explain		

11	Power Adapter Included	Yes	Yes / No / Explain		
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18. HDMI table flip box for laptop

Item specifications for HDMI table flip box for laptop

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Input	1 HDMI: on a female HDMI connector	Yes / No / Explain		
2	RJ45 port	1 or more	Yes / No / Explain		
3	3 Pin Indian standard Power socket	Yes	Yes / No / Explain		

19. HDMI DE-EMBEDDER (Audio)

Item specifications for HDMI DE-EMBEDDER

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Inputs	HDMI: on female HDMI Connector	Yes / No / Explain		
2	Outputs	HDMI: on female HDMI Connector	Yes / No / Explain		
3	Stereo Analog Audio Output	Yes	Yes / No / Explain		
4	HDMI 2.0 Compliant	Yes	Yes / No / Explain		
5	Video (Bandwidth)	17 Gbps or better	Yes / No / Explain		
6	Video (Resolution	4K@60Hz (4:4:4) or better	Yes / No / Explain		

20. DP(Male) to HDMI(Fema)converter

Item specifications for DP(Male) to HDMI(Fema)converter

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	Input - Display port (Male)	1 or more	Yes / No / Explain		
2	Output - HDMI port (Female)	1 or more	Yes / No / Explain		
3	Supported Resolution	4K@60Hz (4:4:4)	Yes / No / Explain		

21. USB Type-C (Male) to HDMI (Female) Adapter / Adapter cable

Item specifications for USB Type-C (Male) to HDMI (Female) Adapter / Adapter cable

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Input	One USB Type-C (Male)	Yes / No / Explain		
2	Output	One HDMI (Female)	Yes / No / Explain		
3	Supported Resolution	4K@60Hz (4:4:4)	Yes / No / Explain		

22. AA Battery

Item specifications for AA Battery

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	AA Ni-MH Battery	Yes / No / Explain		
2	Capacity	2500 mAh or more	Yes / No / Explain		
3	Rechargeable Battery	Yes	Yes / No / Explain		

23. AAA Battery

Item specifications for AAA Battery

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type	AAA Ni-MH Battery	Yes / No / Explain		

2	Capacity	800 mAh or more	Yes / No / Explain		
3	Rechargeable Battery	Yes	Yes / No / Explain		

24. Battery Charger for AA & AAA Rechargeable Batteries

Item specifications for Battery Charger

Sl No	Specification	Value	Compliance	Offered Specification	Remark
1	No of batteries charged at a time	4 Nos or more	Yes / No / Explain		
2	Type of batteries Supported	AA & AAA	Yes / No / Explain		
3	Charging Time for 4 Nos of AA 2500 mAh Batteries	4 Hours or less	Yes / No / Explain		
4	Charging Time for 4 Nos of AAA 800 mAh Batteries	4 Hours or less	Yes / No / Explain		
5	LED Indicators for Battery Status	4 Nos or more	Yes / No / Explain		
6	Compatibility with Item No: 22 & 23	Yes	Yes / No / Explain		

25. Rack and accessories

Item specifications for Rack and accessories

Sl No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of Rack	Portable Rack	Yes / No / Explain		
2	Usable height	22 U	Yes / No / Explain		
3	Usable width	19 inches	Yes / No / Explain		
4	Overall Width	600 mm	Yes / No / Explain		
5	Overall Depth	600 to 800 mm	Yes / No / Explain		
6	Mount Type	Free-Standing	Yes / No / Explain		

7	Front glass Door	Yes	Yes / No / Explain		
8	Removable Side Panels	Yes	Yes / No / Explain		
9	Heavy Duty Caster Wheels	4 nos	Yes / No / Explain		
10	Heavy Duty Caster Wheels with Brake	2 nos. or more	Yes / No / Explain		
11	Heavy Duty Caster Wheels without Brake	2 nos. or more	Yes / No / Explain		
12	Secure Locks	Yes	Yes / No / Explain		
13	Support cable entry from top or bottom	Yes	Yes / No / Explain		
14	No. of Fan for Heat dissipation	1 or more	Yes / No / Explain		
15	No. of Rack trays	2 or more	Yes / No / Explain		
16	6 Outlet Power strip with universal socket	3 nos or more	Yes / No / Explain		

26. EQUIPMENT INSTALLATION SERVICES

Item specifications for EQUIPMENT INSTALLATION SERVICES

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Installation, Programming , Configuration & Integration with existing System:	Required	Yes / No / Explain		

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
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1	<p>Make and model number of all items quoted should be explicitly mentioned by the supplier in the technical bid. Marked /Highlighted Datasheet of quoted items should be included along with the bid.</p>	Required	Yes / No / Explain		
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Supporting Documents required from Vendor

- 1. Authorization certificate from OEM stating back-to-back onsite comprehensive warranty support for 3 years & support for spares should be submitted for the 13 items listed in Sl. no. ii) of Terms and conditions in Detailed specification document**
- 2. Compliance matrix regarding Terms and conditions (Given in Annexure IV)**
- 3. Document containing quote of 2 year comprehensive AMC after Warranty period (Price bid Related) (Price Bid Related)**

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Training on the facility operation should be given to LPSC officials, including hands on sessions	Yes / No / Explain	
2	10 weeks for delivery from the date of placement of P.O , 4 weeks for installation after the acceptance of items	Yes / No / Explain	
3	Authorization certificate from the OEM (MAF) stating back-to-back onsite comprehensive warranty support and support for spares should be submitted for the items listed in Terms and Conditions document.	Yes / No / Explain	
4	Comprehensive AMC: Rates for the next 2 years after the completion of the warranty period shall be quoted for commitment purpose, explicitly in a separate document uploaded with the price bid	Yes / No / Explain	
5	As the scope of work involves installation and configuration of AV equipment in a conference hall, splitting of the Purchase Order to multiple parties shall not be carried out	Yes / No / Explain	
6	The configuration file of the Audio DSPs installed and programmed, should be handed over to LPSC at the time of commissioning the facility.	Yes / No / Explain	
7	Pre bid visit: Interested parties can visit hall for getting an idea about AV facility to be established. For this, bidders may contact SPSO (Ph:04712567726/7727) by sending a mail to pso_2@lpsc.gov.in & spso_purchase@lpsc.gov.in	Yes / No / Explain	
8	Party shall be ready for a demonstration of the sample of the offered products at LPSC at the time of technical evaluation if requested. A confirmation for this demonstration has to be included in the technical offer.	Yes / No / Explain	
9	MII content of items quoted in percentage of total value & the location at which value addition is made should be specified by the suppliers along with offer. A minimum of 20% MII content is required for the total items quoted.	Yes / No / Explain	

10	The system integration document with all installation details and the operation manual for the user need to be provided at the time of commissioning of the system	Yes / No / Explain	
11	Updates/renewal of licenses: For all the licensed products, required licenses shall be submitted with appropriate authorization. Updates/renewal of such licenses during warranty & AMC periods will be the responsibility of the vendor.	Yes / No / Explain	
12	Installation & commissioning has to be carried out as per LPSC requirement & connectivity to existing systems/facilities has to be carried out by supplier. Necessary cables, connectors, converters, consumables & accessories required should be supplied	Yes / No / Explain	
13	As per the Rule 144(xi) of General Financial Rule ,2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy service and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT). Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.	Yes / No / Explain	
14	Whether applicable GST percentage mentioned in your offer.	Yes / No / Explain	
15	Installation Charges, if any, (If mentioned as EXTRA OR INCLUDED in your quote, please mention the percentage in Remarks Column).	Yes / No / Explain	
16	Delivery Term :- FOR : LPSC, VALIAMALA In case of Foreign orders, FOB or FCA. If "NO" specify the exact delivery term with relevant details in remarks column	Yes / No / Explain	

17	<p>Delivery Period (If any specific delivery period is mentioned in the tender, please comply the same. If not agreed, please mention your delivery period in remarks column OR if already mentioned in your quote please mention as already furnished in the quote)</p>	Yes / No / Explain	
18	<p>Payment Term :- (a)100% payment shall be made through RTGS within 30 days of receipt and acceptance of the item at our site. (b)In case of Foreign orders, Payment term shall be SIGHT DRAFT / 80% BY IRREVOCABLE LETTER OF CREDIT AND BALANCE 20% BY WIRE TRANSFER AFTER RECEIPT & ACCEPTANCE OF THE ORDERED ITEM.</p>	Yes / No / Explain	
19	<p>Liquidated Damages (LD) :- If the ordered items are not supplied within the delivery schedule, LD shall be levied from your bill @ 0.5% per week for the undelivered items subject to a maximum of 10% of the order value for the delayed period.</p>	Yes / No / Explain	
20	<p>Warranty :- Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for the period specified in the tender document.</p>	Yes / No / Explain	
21	<p>Security Deposit (SD) :- (only for order value above Rs.5 Lakh) You have to furnish a Bank Guarantee for 3% of the order value (from a bank of international repute in case of foreign vendors) within 10 days of receipt of Order towards the faithful execution of the order valid till the completion of the scope of work as per order plus sixty days. (This will be returned to you immediately on execution of the order satisfactorily as per order terms. In case of non-performance / poor performance, the amount will be forfeited).</p>	Yes / No / Explain	

22	<p>Performance Bank Guarantee (PBG) :- You have to submit a PBG from a Nationalised / Scheduled Bank (from a bank of international repute incase of foreign vendors) for 3% of the order value towards the performance of the system at the time of supply valid till the completion of warranty period plus 60 days as per the format provided by the Department.</p> <p>OR</p> <p>3% OF THE ORDER VALUE SHALL BE WITH HELD TILL THE COMPLETION OF WARRANTY PERIOD PLUS 60 DAYS.</p>	Yes / No / Explain	
23	<p>In case, if parties are unable to provide two separate BGs, i.e., one for SD and one for PBG, they can submit a combined BG for SD & PBG within 10 days of receipt of order for 3% of order value valid till the completion of total contractual obligation (i.e., supply period plus warranty period plus 60 days) as per the format provided by the Department.</p>	Yes / No / Explain	
24	<p>Insurance :- Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper AIR / SEA / ROAD worthy packing.</p>	Yes / No / Explain	
25	<p>Validity of Offer :-</p> <p>(a)The validity of the offers should be 90 days (in case of single part tender) from the date of opening of the tenders.</p> <p>(b)The validity of the offers should be 120 days (in case two part tender) from the date of opening of the tenders.</p> <p>Note :- Tenders shorter than offer validity mentioned above will not be considered for evaluation.</p>	Yes / No / Explain	
26	<p>Bank Details, viz., Bank Name, Branch, Address, Account No., IFSC (Details to be given in Vendor Terms Column)</p>	Yes / No / Explain	
27	<p>PAN No. (Details to be furnished in Vendor Terms Column)</p>	Yes / No / Explain	
28	<p>GST No. (Details to be given in Vendor Terms Column)</p>	Yes / No / Explain	
29	<p>Purchase Order to be placed on whom (Please mention the Address, Phone No. & E-mail id)</p>	Yes / No / Explain	

30	HSN Code of offered items	Yes / No / Explain	
31	Local content involved in the quoted item shall be declared/ certified in percentage.	Yes / No / Explain	
32	Furnish the details of place(s) where the value addition for the quoted item takes place.	Yes / No / Explain	
33	State whether MSE or not. If yes, please provide the necessary documentary proof	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Other Costs, if any	Remark
1	Boundary layer microphone	12.00 Nos.		-			
2	Wireless Handheld microphone	2.00 Nos.		-			
3	Wireless Microphone (Head worn)	1.00 Nos.		-			
4	Audio Digital Signal Processor	1.00 Nos.		-			
5	AUDIO AMPLIFIER	1.00 Nos.		-			
6	Ceiling Mount Speakers	9.00 Nos.		-			
7	USB 3.0 peripheral sharing switch	1.00 Nos.		-			
8	Multimedia Projector	1.00 Nos.		-			
9	Motorised Projection Screen (Tab Tension)	1.00 Nos.		-			
10	LED DISPLAY	2.00 Nos.		-			
11	LED Display (Interactive)	2.00 Nos.		-			

12	USBs Extender kit	2.00 Nos.		-			
13	CAMERA	1.00 Nos.		-			
14	HDMI to USB CONVERTER	2.00 Nos.		-			
15	HDMI Matrix Switcher	1.00 Nos.		-			
16	HDBase T Transmitter	5.00 Nos.		-			
17	HDBase T Receiver	5.00 Nos.		-			
18	HDMI table flip box for laptop	1.00 Nos.		-			
19	HDMI DE-EMBEDDER (Audio)	3.00 Nos.		-			
20	DP(Male) to HDMI(Female)converter	2.00 Nos.		-			
21	USB Type-C (Male) to HDMI (Female) Adapter / Adapter cable	2.00 Nos.		-			
22	AA Battery	20.00 Nos.		-			
23	AAA Battery	10.00 Nos.		-			
24	Battery Charger for AA & AAA Rechargeable Batteries	2.00 Nos.		-			
25	Rack and accessories	1.00 Nos.		-			
26	EQUIPMENT INSTALLATION SERVICES	1.00 Lot		-			

Common charges (Applicable for all items)

Additional Costs, if any	
Additional Costs, if any (Value)	