

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्  
Council of Scientific & Industrial Research  
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं  
National Aerospace Laboratories



CSIR - NAL Estd. 1959  
ISO 9001 : 2015  
Certified Organization

INVITATION FOR BIDS/NIT

Tender No. NAL/PUR/ASD/379/19-Y

Dated: 09-Dec-19

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl.No.	Description of Items	Unit	Quantity
01	Supply and Installation of Video Conferencing system. Please refer Annexure for detailed specification	Set	01

Single / Double Bid	Two Bid
Bid Security (EMD) (in INR)	Rs. 40000/-
Performance Security	10% of the purchase order value

01. Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
02. Tenderers can access tender documents on the website (For searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule given in the next page.
03. Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different Foreign principals in one tender.
04. Unsolicited / conditional / unsigned tenders (Quotations) shall not be considered. Quotations received after the due date and time shall be summarily rejected.
05. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
06. The Director, CSIR- National Aerospace Laboratories., Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.

  
Raman Kumar  
(Section Officer S&P)

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**SCHEDULE CUM CRITICAL DATE SHEET**

1	Name of Organization	CSIR-National Aerospace Laboratories, Bengaluru	
2	Tender Reference No	NAL/PUR/ASD/379/19-Y dated: 09-Dec-19	
3	Tender Type (Open/Limited/EOI/Auction/Single)	Open Tender	
4	Type/Form of Contract (Work / Supply / Auction / Service / Buy / Empanelment / Sell)	Supply	
5	No of Covers (One/Two/Three/Four)	Two	
6	Tender Category (Services/Good/Works)	Goods	
7	Allow Resubmission (Only in online mode within scheduled period)	Yes	
8	Allow Withdrawal (Only in online mode within scheduled period)	Yes	
9	Allow Offline Submission	No	
10	Work Item Title	Supply and Installation of Video Conferencing system.	
11	Work Description	Supply and Installation of Video Conferencing system.	
12	Delivery Schedule	30 days from the date of purchase order	
13	Product Category (Civil Works / Electrical Works / Fleet Management / Computer Systems)	R & D Equipment	
14	Is Multi Currency Allowed	Yes	
15	a) Tender Publishing Date -	11-Dec-19	1800 Hrs
	b) Document Download Start Date-	11-Dec-19	1800 Hrs
	c) Bid Submission Start Date-	11-Dec-19	1800Hrs
	d) Bid Submission End Date-	02-Jan-20	1000 Hrs
	e) Bid Opening Date-	03-Jan-20	1100 Hrs
16	Bid Validity Days	90 days	
17	Address for communication	Stores and Purchase Officer CSIR-National Aerospace Laboratories, HAL Airport Road, Kodihalli, Bengaluru - 560017	
18	Inviting Officer	Director, CSIR-NAL	
19	Contact No	25086040, 25086041	
20	E-mail Address	<a href="mailto:purchasek@nal.res.in">purchasek@nal.res.in</a>	
21	Detailed specification of item	Refer Invitation for bids / NIT	
22	Tender Terms & Conditions & Instruction for online bid submission	The prospective bidders are requested to refer to the Standard Tender Document available on NAL Internet ( <a href="http://www.nal.res.in">www.nal.res.in</a> ) under the icon Tender-Purchase before formulating and submitting their bids	

**SPECIFICATIONS AND ALLIED TECHNICAL DETAILS**

**Bill of Materials for Video conferencing setup**

SI No	Item Description	Qty
1	VC Setup for CTFD conference hall as per specifications in Annexure-I	1 Setup
2	Laptop for operation of VC at CTFD Conf.Hall as per specifications in Annexure-II	1 No

**Annexure-I: CTFD Conference setup**

Sr. No	Description	Specification for VC - CTFD Conference Hall	Compliance
1	Package	One VC Codec, One Full HD 1080p60 camera, Two 65" displays, Microphones as required (Room Size 4.5 m x 7 m), Infrared remote control, mounting kit, all necessary cables & connectors as per the specifications given below:	
2	Functionality requirement	Setup must satisfy the following conditions	
		1. VC codec should take atleast one camera inputs	
		2. VC codec should take atleast one HDMI input for presentation which shall be from the location near opposite end of CTFD conference hall	
		3. VC Codec should have atleast two HDMI outputs one for video and one for presentation	
		4. The Vendor should supply and install all necessary accessories and cables/casing/rubber floor cable manager to connect VC codec HDMI outputs to display on two displays and it should be possible to switch video/presentation on any of the mentioned displays as required.	
		5. The setup should include all the necessary microphones and cabling/casing/ rubber floor cable manager required to capture audio from any of the speakers	
		6. Vendor should supply necessary accessories for recording of the video conference event for duration of atleast 8 hours. It should be possible later to export the recording to external devices in MP4/AVI format	
3	Video Standards and Resolutions	It should support H.323, SIP standards for communications.	
		It should support H.261, H.263, H.264 AVC/ SVC, H.264 High Profile/H.265	
		It should support 1080p 60 fps, 1080p 30 fps, 720p 60 fps and 720p 30fps	

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4	Content Standards and Resolutions	It should support content sharing using standard based H.239 & BFCP. It should also support audio from PC used for content sharing.	
		It should transmit both people and content both simultaneously to the far end location at 1080p 30fps	
5	Audio Standards and Features	It should support G.711, G.722, G.722.1, AAC-LD or better	
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.	
		Automatic Gain Control and Automatic Noise Suppression	
		Keyboard noise reduction and instant adaptation echo cancellation	
6	Video and Audio Inputs	1 x HDMI/HDCI input for connecting main HD camera	
		1 x HDMI/HDCI input for connecting secondary HD camera	
		1 x HDMI input for connecting PC/Laptop to share HD content	
		1 x Microphone Input	
		1 x RCA/3.5mm line-in	
7	Video and Audio Outputs	2 x HDMI output for connecting main monitor (Video) & second monitor (Presentation).	
		1 x HD output for connecting additional monitor or DVD recorder.	
		1 x RCA/3.5mm stereo line-out	
8	Network Interfaces	1 x 10/100/1000 LAN port	
9	Cameras	It should support 1080p60fps with 12x zoom.	
		It should support PAN Range of +/-90°, and Tilt of +/-20°	
		It should be capable of focusing on the speaker automatically without any manual intervention during video conferencing	
10	Network Features	H.323 and SIP bandwidth up to 6 Mbps	
		IPv4 and IPv6 support from day one	
		IP Precedence, QoS	
		H.323 based Packet Lost Recovery	
11	Multisite Feature	It should support atleast 1+5 ,multiparty conferencing	
12	Security	Media Encryption (H.323, SIP): AES-128	
		Authenticated access to admin menus, web interface and telnet API	
		Local account password policy configuration	
13	Other Standards	H224/H.281, H.323 Annex Q, H.245 H.239, H.460	
14	Display Specifications	LED screen size diagonally 65inch (162cm) or more.	
		Should support minimum native resolution of 1920x1080 pixels.	
		Should have atleast one HDMI/DVI video input along with audio output.	
		Should have on DVI-I/VGA input to connect PC/Laptop along with audio.	

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	Shall have LAN (RJ-45) port and Wi-Fi connectivity to direct presentations/applications to display on the LED/LFD Monitor.	
	Should work satisfactorily with VC system as specified.....	
	Display shall be capable of working for 16x7 hours of operations.	
	Shall operate for 10,000 hours.	
	Shall have brightness of 350 nit or more.	
	Built-in audio amplifier for 10W RMS power with speakers.	
	Easy to use infrared Remote Controller	
	All necessary mount kits, cables, connectors should be supplied.	
	Should work with 230V, 50Hz AC input.	

**Annexure-I | Specifications for Laptop**

Sr. No	Specification for Laptop	Compliance
1	Should be preloaded with 64 bit Windows 10 Professional operating system	
2	Should be preloaded with perpetual licensed Microsoft Office Professional 2019.	
3	Should be with Processor: Intel Core i7-8550U Processor (Quad Core, 8M Cache, 1.8GHz,15W) or better	
4	Should be with inbuilt AMD Radeon 530 2GB Graphics card or better	
5	Should be with 14" HD (1366x768) display with HD camera and microphone	
6	Should be with atleast 16GB DDR4 RAM	
7	Should be with a hard disk drive of atleast 1TB	
8	Should provide battery backup of atleast 5 Hours	
9	Should be with dual band wireless adapter and Bluetooth	
10	Should be with backlit Keyboard and touchpad for mouse	
11	Should be with inbuilt SD card reader.	
12	<b>Should be with 3 years onsite comprehensive Warranty with Hard Disk replacement without surrendering faulty hard disk.</b>	
13	Should be provided along with a backpack for carrying	

Bid Format for Video conferencing setup

SI No	Item Description	Qty	Total
1	VC Setup for CTFD Conference hall as per specifications in Table-1.0 (Rate including supply, installation, commissioning, training, taxes etc.)	1 Setup	
2	Laptop for operation of VC as per specifications in Table-2.0	1 No	
(Sl. NO. 1+2) Total			

- I. The vendor must quote in the above bid format which shall include all the costs including supply, installation, training, taxes etc. Additional sheets may be used for the split-ups if required.
- II. The Prices quoted should be inclusive of all taxes or duties, packing, forwarding, freight, insurance, delivery and commissioning etc. at destination site (CSIR-NAL Bengaluru)
- III. Vendor must quote for AMC for 4<sup>th</sup> and 5<sup>th</sup> year for the above mentioned items. However, the quote for AMC will not be considered for tender evaluation.
- IV. Vendor shall quote rates for each of the items as per the above given list, L1 will be considered based on cost of total items as per the above list which shall include all the costs.
- V. Warranty: 3 years onsite comprehensive warranty with Hard Disk replacement without surrendering faulty hard disk.

