



**NATIONAL INSTITUTE OF TECHNOLOGY  
ROURKELA – 769 008, ODISHA**

**Advertised Tender Enquiry**

**Department: Computer Centre**

**Tender Notice No: NITR/PW/CC/2019/177**

**Date: 03/12/2019**

**Important Dates**

**To**

**Through  
CPP Portal  
(E-procurement)**

<b>Event</b>	<b>Date</b>	<b>Time</b>
Pre-bid Conference	<b>NA</b>	<b>NA</b>
Last Date of submission of Bid	<b>26/12/2019</b>	<b>03:00 PM</b>
Date of opening of Techno-commercial Bid	<b>27/12/2019</b>	<b>03:00 PM</b>

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any clarification:

**Attention:-**

Dr. Bibhudatta Sahoo ,  
Head, Computer Centre  
National Institute Of Technology  
Rourkela – 769008, Odisha  
Phone: 0661 – 2462671  
E-mail: [bdsahu@nitrkl.ac.in](mailto:bdsahu@nitrkl.ac.in)

Yours sincerely,

\_\_\_\_\_  
Name: Dr. Bibhudatta Sahoo  
PIC [Computer Centre]

**Encl:**

- 1) Schedule of requirement, specifications, dates etc.**
- 2) Bid document containing detail terms and conditions.**

## 1. Schedule of requirements

Sl. No.	Description of Goods/Service	Quantity
1	Interactive flat panel display Digital board 75"	2(Two)
2	Hardware Based Video Conferencing End Point with USB Based 2 Unit Microphone with audio and other complete accessories	1(One)
3	Hardware Based Video Conferencing End Point with USB Based 1 Unit Microphone with audio and other complete accessories	1(One)

## 2. Specifications and allied Technical Details

For detailed specification see Annexure I

## 3. Format of Quotation

It is a two-part bid with separate techno-commercial and price bids.

4. The Bid should be submitted through <https://eprocure.gov.in/eprocure/app>
5. Quotations should be valid for a period of **120 days** from the date of opening of techno-commercial bid.

## 6. Some important dates:

i.	Pre-bid Conference:	Date: <b>NA</b>	Time: <b>NA</b>
ii.	Last date for submission of bid :	Date: <b>26/12/2019</b>	Time: <b>03:00 PM</b>
iii.	Opening date of techno-commercial bid:	Date: <b>27/12/2019</b>	Time: <b>03:00 PM</b>

7. **Warranty:** Warranty must be **1 year** onsite which should be clearly mentioned along with the quotation.
8. **Technical Evaluation Criteria:** As per the detail equipment technical specifications given in Annexure –I. If required, the bidder may be asked to provide clarification regarding the technical aspects.

### Other qualification Criteria:

- At least three user names and contacts from NIT/IIT/reputed Indian institute / Govt. R & D organizations or reputed Private Organizations must be provided where the above equipment and accessories (Annexure –I) have been supplied in last five years. Scan copies of the minimum three purchase orders of the above equipment and accessories (Annexure-I) must be enclosed along with the technical bid.
- There must be a local maintenance centre with the availability of the spares in India.
- Scanned copies of the technical brochure of the above equipment and accessories (Annexure-I) given in the quotation must be included in the technical bid.
- Web reference must be provided along with the technical bid.
- Make and model no. should be mentioned in the technical bid.
- Customized equipment and accessories (Annexure-I) will not be accepted.

9. The comparison will be made for award of contract on the overall price basis
10. (a). If the price quoted in foreign value, the prize should be CIF/CIP up to Kolkata airport.  
(b) **GST: GST should be charge according to applicable rates (if applicable).**
11. **Bid Security (EMD) and Tender Cost: - EMD (Earnest Money Deposit)** in shape of DD (Demand Draft) for **INR 42,000/-(Rupees Forty Two thousand only)** and Tender cost (Non-refundable) in the form of DD for **INR 500/-(Rupees Five Hundred only)** in favour of "**Director, NIT Rourkela**" payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin Bank. And DD for the EMD (Earnest Money Deposit) should remain valid for a period of 45 days beyond the bid validity period from the date of the opening of the tender. The EMD (Earnest Money Deposit) of unsuccessful bidders should be return to them at the earliest and latest on or before the 30<sup>th</sup> days after the award of the contract. EMD (Earnest Money Deposit) and the tender cost should reach physically through **speed post/ registrar post / courier**, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela -769008, Odisha; on or before 27/12/2019 at 03:00 PM**
12. **Performance Security: INR 1, 10, 000/-(Rupees One lakh ten thousand only)** in shape of Demand Draft (DD)/Bank Guarantee in favour of Director, NIT Rourkela and payable at Rourkela. And Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation. And EMD (Earnest Money Deposit) amount of successful bidder will be return after the receipt of performance security in case of award of contract to successful bidder.
13. Please go through the enclosed "bid document" carefully for other bidding instructions.
14. Please send you quotation through <https://eprocure.gov.in/eprocure/app>
15. For technical details, you may contact

Dr.Bibhudatta Sahoo ,  
Head, Computer Centre  
National Institute Of Technology  
Rourkela – 769008, Odisha  
Phone: 0661 – 2462671  
E-mail: [bdsahu@nitrkl.ac.in](mailto:bdsahu@nitrkl.ac.in)



# NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

## **BID DOCUMENT**

### **1. Instructions to the bidders**

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769008, Odisha, from the intending bidders for supply of the goods/stores/equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The Bid should be uploaded in <https://eprocure.gov.in/eprocure/app> Please follow the guideline of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in Para 1.4 above shall not be taken into consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered nonresponsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., technical bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over-writing in those pages is acceptable.
- 1.11 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
  - i) Khadi and Village Industries Commission (KVIC)
  - ii) National Small Industries Corporation (NSIC)
  - iii) Any other body specified by Ministry of MSME/GOI

## 2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of all taxes and duties, packing, forwarding, freight, Insurance and all other incidental charges. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

**It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No. - 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018]**

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **30 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in **Annexure I**.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date Income Tax Clearance Certificate along with the bid.

- 2.12 Payment (*100 percent*) will be made by Account Payee Cheque/Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.13 In case of Advance payment, the pro-forma invoice copy need to be sent for advance payment.
- 2.14 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final.
- 2.15 The bid document/resultant contract will be interpreted under Indian Laws.

**(A) Technical Specification of Full HD Video Conferencing 1+5 End Point**

<b>Parameter</b>	<b>Specification</b>
Video Conferencing System Resolution	1080p 60fps or better
Focus Arrangement	Manual/Automatic
Brightness Adjustment	Manual/Automatic
White Balance	Manual/Automatic
Content Video Resolution	Input: VGA (640x480), SVGA (800x600), XGA(1024x768), WXGA(1280x768), WXGA (1280x800), 1280x960, SXGA(1280x1024), 1360x768, 1366x768, 1440x900, XGA+(1400x1050), 1600x900, 1600x1200, 1680x1050, 1080p(1920x1080) Coding/Decoding Resolution: 800x600, 1024x768, 1280x1024, 1280x720, 1920x1080 Output: 800x600, 1024x768, 1280x1024, 1280x720, 1920x1080
Other Video Features	PiP (Picture in Picture), PoP (Picture outside Picture)
Type of Camera	PTZ (CMOS Sensor)
<b>Standards and Protocols</b>	
Video Standards and Protocols	H.261, H.263, H.263+, H.263++, H.264, H.264 High Profile
Audio Standards and Protocols	G.711, G.722, G.722.1*, G.722.1C*, AAC-LD, G.726, SILK
Dual Stream	ITU-T H.239, BFCP
Other Standards	H.221, H.225, H.235, H.241, H.245, H.281, H.350, H.460, T.140, DTMF
Network Standards and Protocols	TCP/IP, DHCP, SSH, HTTP, HTTPS with SSL/TLS, RTP, RTCP, RFC3261, RFC3264, RFC2190, RFC3407, RFC2833, RFC4585(RTP/AVPF), SNTP, ARP, RTMP
<b>Audio Specifications and Features</b>	
Audio Features	AEC (Acoustic Echo Cancellation)
	AGC (Automatic Gain Control)
	ANS (Acoustic Noise Suppression)
	Lip synchronization
<b>Security and Stability</b>	
Network	FEC (Forward Error Correction), ARQ (Automatic Repeat-request) etc.
Security	H.235 (AES) Signal and media stream encryption Administrator password, SSH/HTTPS
Firewall Traversal	H.460, ICE
Bandwidth IP	64kbps ~ 8Mbps

<b>Interface</b>	
Audio Input	2 x RCA line-in jack, 2 x XLR mic-in jack, 1 x HDMI , 1 x RJ45 digital mic-in jack
Audio Output	2 x RCA line-out jack, 2 x HDMI audio output
Video Input	1 x HDMI, 1 x DVI-I (HDMI, VGA/YPbPr), 1 x 3G-SDI
Video Output	2 x HDMI , 1 x 3G-SDI
Communication Interface	Rs232 In x 1: RJ45
USB Interface	USB2.0 x 2 Host (support USB flash disk, USB microphone etc.)
Ethernet Port	RJ45 x 1
Approval and Compliance	1000 local address book LDAP/Network address book, H.350
<b>Applications</b>	
Streaming and Recording	Should support Streaming and USB Based Recording
Secure Connection	Should support AES-256 Encryption
Dual Codec	Should support Dual Codec 1080p @ 60 fps
Wireless Connectivity	Should support Wireless Connectivity using Wifi
Multi Device compatibility	Should support Multi device i.e. Laptop, Tab, Mobile
Simultaneous Connection	Should connect 1+5 Endpoints simultaneously
Additional Requirements	Audio associated with presentation
	Should Support "SameView"
	Should Support Timing power on and power off
	Should Support Automatic standby and wake up on incoming call
	Should Support DNS SRV
	Should Support Incoming call password
	Should Support Asymmetric bandwidth
	Should Support Built-in VPN
	Should Support Automatic to get static NAT address
	Should Support PIP: 1/16 picture size, optional position
	Should Support Split output: Bi-screen and tri-screen display
	Should Support Network address book
	Should Support Support SDK API
	Should Support Bulit-in MCU
Should Support web-based conference management	
Should Support USB microphone	
Should Support Remote upgrade by network	
<b>Physical Characteristics</b>	
Electrical	Working voltage: AC 100V ~ 240V, DC 12V Working frequency: 50/60Hz Power consumption: 65W Max
Environmental Specification	Operating temperature: -10°C to 40°C Operating humidity: 10% to 80% Non-Operating temperature: -40° to -70°C Non-Operating humidity (non-condensing): 0% to 95%
<b>VC Camera</b>	
Sensor	1/2.7", CMOS, Effective Pixel: 2.07M



Scanning Mode	Progressive
Lens	f3.5mm ~ 42.3mm, F1.8 ~ F2.8
Optical Zoom	12x or higher
Digital Zoom	16x or higher
Minimal	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One-Push, Manual
Backlight Compensation	Support
Digital Noise Reduction	2D&3D Digital Noise Reduction
Video S/N	≥55dB or better
Horizontal Angle of View	73 degrees ~ 7 degrees or better
Vertical Angle of View	45 degrees ~ 4 degrees or better
Horizontal Rotation Range	±170 degrees
Vertical Rotation Range	Minus 30 degrees ~ Plus 90 degrees or better
Pan Speed Range	1.7 degrees ~ 100 degrees per second or better
Tilt Speed Range	1.7 degrees ~ 70 degrees per second or better
H & V Flip	Support
Image Freeze	Support
PoE	Support
Face Detection	Support
Local Storage	Support
Number of Preset	255
Preset Accuracy	0.1°
Video System	HD: 1080p/60, 1080p/50, 1080i/60, 1080i/50, 1080p/30, 1080p/25, 720p/60, 720p/50
<b>IPC Features</b>	
Video	H.265/H.264/MJPEG
Video Stream	Main Stream, Sub Stream
Main Stream Resolution	1920x1080, 1280x720, 1024x576
Sub Stream Resolution	720x576, 720x480, 320x240
Video Bit Rate	32Kbps ~ 2048Kbps
Bit Rate Type	Variable Rate, Fixed Rate
Frame Rate	50Hz: 1fps ~ 25fps, 60Hz: 1fps ~ 30fps
Audio	AAC
Audio Bit Rate	96Kbps, 128Kbps, 256Kbps
Support protocols	TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc.
<b>Operational Requirement</b>	
Audio Encoding	Device should Support AAC audio encoding, better sound quality and smaller bandwidth.
Local Storage	Device should Support local storage module, directly recording to local USB flash disk.
Low Light	Device Should support High SNR of CMOS sensor, even under low illumination conditions, picture can still keep clean and clear.
Remote Control	All the parameters of the camera can be remote controlled by the high-speed communications
<b>Input/Output Ports</b>	
HD Output	1xHDMI: Version 1.3
	1x3G-SDI: BNC type, 800mVp-p, 75Ω, Along to SMPTE 424M standard
SD Output	1xCVBS: 3.5mm mini jack, 1Vp-p, 75Ω

Network Interface	1xRJ45: 10M/100M Ethernet Interface
Audio Interface	1-ch: 3.5mm Audio Interface, Line In
USB	1xUSB2.0: Type A female jack
Communication Interface	1xRS232 In: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/Pelco-P
	1xRS232 Out: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only
	1xRS485: 2pin Phoenix Port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
Power Jack	JEITA type (DC IN 12V)
<b>Generic Specification</b>	
Input Voltage	DC 12V
Current Consumption	1.0A (Max)
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Power	12W (Max)

### (B) Technical Specification of Large Display Format (4K, 75 inch)

Parameter	Specifications
Technology	DLED +C3:C26Backlight (IPS)
Display size (Diagonal)	75 inches or higher
Aspect Ratio	16:9 or better
Resolution	3840 X 2160 or higher
Contrast Ratio	5000:1 or higher
Brightness	600 cd/m <sup>2</sup> or higher
Display color	8 bit-16 million colors or better
Input Ports (Minimum)	HDMI x 3, RGB/VGA x 1, Audio x 1, CVBS (AV) x 1, PC slot x 1, RS232x1
Output Ports (Minimum)	HDMI x 1, Audio(Earphone out) x 1, Coax x 1, SPDIF x1, RS232 x1
USB Ports (Minimum)	USB 2.0 Type A x 4, USB 3.0 Type A x 2
Camera Port	Dedicated USB Based Camera Port
Camera Plate	Camera Plate on top for screw-in web cam installation
Communication port	RJ45 x 1 Giga LAN Port
Built In Speakers	2.1 Stereo Sound with in-built 20 Watt x 2 speakers and 15 Watt x 1 Sub-Woofer or better
Viewing Angle	Horizontal 178 degrees, Vertical 178 degrees or better
Split Screen	4 Way Split Screen content sharing software
OS Support/Embedded Player	Windows 10/ Windows 8/ Windows 7/Linux/Mac/Android Embedded Player CPU Inbuilt.
Networking	DHCP (Auto identification) and Static IP supported
Hardness, Anti Scratch, Anti- Glare	Minimum 7 H hardness, scratch resistant, anti-glare, anti-crack resistant
Save Option	Should have option to save directly to Google Drive and One Drive

Screen Mirroring, Wireless content sharing	Data from Mini PC should be shared wirelessly on multiple Phones/Tablets without any other hardware requirement. LFD should allow user to share/mirror the content of Laptop/Desktop (Mac, Windows) and mobile device(iOS, Android) wirelessly, Wireless presentation should allow user to access their Laptop/Desktop through LFD
Zoom Video Conferencing	Should have in built Zoom Video Conferencing app as an integral part of LFD
QR Code Scan	Should have file download feature in smart phone just by scanning the QR code
Video Conferencing Interface	Should support USB based PTZ cameras allowing Software based Video Conferencing
HDMI Out Mirroring (Extended Display)	Mirroring Capabilities deliver group discussion and spatial arrangement flexibility by allowing content to be mirrored on to two LFD's simultaneously
<b>In-Built Android Hardware</b>	
CPU	ARM Dual Core Cortex A73 1.2 GHz or Higher
Memory	2 GB or Higher Storage
Storage	16 GB e-MMC or Higher
Android Version	7 or higher
Accessories	AC Power cord, User Manual, Remote control, USB interface cable, Two Stylus, Wall mount bracket
Power supply requirement	230V AC +/- 10%, 50 Hz
Max Power consumption	Maximum 140 Watts

**(C) Technical Specification of Omni Directional USB Mic**

<b>Parameter</b>	<b>Specifications</b>
OS	Android
Wireless communication technologies	Bluetooth
Connectivity	wireless
Special features	Bluetooth connection to: Mobile devices, headset and PC.
Battery Life	15 Hours
Inbuilt Speakers (2X5 W)	Yes
Inbuilt Mic	Yes
Range of Mic	10 mtr.

\*\*\*\*\*