



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR KHARAGPUR – 721302

SUB: PROCUREMENT OF VIDEO CONFERENCING SYSTEM

Tender Notice No. **IIT/KGP/SM/EQ-VCU/2018-19/10** Date: **17.12.2018**

Indian Institute of Technology Kharagpur, an Institute of National Importance, invites sealed quotations from reputed Original Equipment Manufacturers (OEMs) or their Authorized representatives & General Suppliers for the purchase of **VIDEO CONFERENCING SYSTEM** for the Department of Electrical Engineering at IIT Kharagpur.

Interested vendors are requested to send their sealed bids under a **two cover system** as per requirement mentioned in tender document, along with the Technical Specifications & Compliance Certificate (as mentioned in **Annexure – I**) of the tender document.

Details are also mentioned in the Institute website **www.iitkgp.ac.in** [link: **Tenders**].

The proposal has to be sent in a sealed packet, containing two separate sealed envelopes (**Technical Bid** and **Price Bid**) duly superscripted with Reference Number (**Tender Notice No. IIT/KGP/SM/EQ-VCU/2018-19/10** Date: **17.12.2018**) to the office of **Prof. Siddhartha Mukhopadhyay**, Indian Institute of Technology, Kharagpur, P.O. Kharagpur Technology, PIN: 721302 **on or before 07.01.2019 at 3.00 pm**.

The **technical bids will be opened on 07.01.2019 at 4.00 pm in the Office of Prof. Siddhartha Mukhopadhyay, Department of Electrical Engineering, IIT Kharagpur** in the presence of the vendors/ or their authorized representatives. Price bids will be opened (to be notified separately) only of those firms, who will be found technically qualified/short listed, after evaluation of their technical bids.

Prof. Siddhartha Mukhopadhyay
PI, CNE_OTG, IIT Kharagpur
Electrical Engineering Department

Encl: Annexure – I & II

Copy to:

- 1. Institute website**
- 2. Jt. Registrar (Stores & Purchase)**
- 3. CPP Portal**
- 4. Chairman, Purchase Committee**
- 5. Notice Board**

Procurement of Video Conferencing System

It will consist of the boards as per the specifications given in Annexure - I

TERMS AND CONDITIONS

1. All licenses must be perpetual with free upgrades for the entire warranty period. All updates of licensed software components must be provided free of cost for the entire warranty period.
2. The bidder should be Original Equipment Manufacturer (OEM) or authorized distributor of the systems (Attach documentary proof). The authorization letter issued by the OEM (specifically against this tender) should be enclosed. If the OEMs for some of the equipment are different, authorization letters must be enclosed for each OEM.
3. Any service request must be attended to within the next business day. Both the bidder and the OEM must have sales and support service centers in Eastern India. The bidder should provide the locations of sales and support service centers of both the bidder and the OEM in India. If the OEM will provide first level support for some equipment, certification to this effect from the OEM must be provided.
4. The bidder must have executed at least three orders of similar nature in India in the last three years (PO Copies or successful completion certificates to be provided).
5. Technical bid should contain all relevant technical details; printed technical leaflet of models quoted and other details, which may be necessary to ensure that the offer is complete in all respects, e.g., technical specifications, etc.
6. Technical bid should also contain a Compliance Certificate duly signed by the bidder.
7. PRICE may be quoted either in INR or in foreign currency. Where tenderer intends to quote in Indian Rupees (INR), the price should be quoted "FOR IIT Kharagpur" basis. The price should be all inclusive including GST. The unit price without tax and the tax breakups should be shown separately for each item (if applicable). Prices for software components, if any, must be shown as separate line items.
8. IIT Kharagpur is registered under DSIR, Govt. of India. GST rate for scientific goods is 5% as per the Notification No. 47/2017 - Integrated Tax (Rate) dated 14th November, 2017. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder. Where tenderer intends to quote in foreign currency FCA/FOB source port price by Air/Sea to be quoted. In case of comparison between FOR IIT Kharagpur (quoted in INR) and FOB/FCA price (quoted in foreign currency) 20% will be added on FOB/FCA price after conversion to INR.
9. IIT Kharagpur is eligible for exemption for payment of Customs Duties in terms of Government of India Notification No.51/96-Customs dated 23.07.96. Necessary certificate in this regard will be issued as per requirement and on request of the successful bidder.
10. L1 Bidder will be decided based on the **Grand Total** of prices of all items mentioned in the specification.
11. Payment Terms: 90% Payment shall be made after successful installation of the Equipment/System duly certified by PI, CNE_OTG. Balance 10% may be released against submission of Performance Bank Guarantee to the tune of 10% of the total purchase order value. The Performance Bank Guarantee shall be issued from any Commercial Bank,

which must remain valid for a period sixty days beyond the expiry of the Warranty Period. Bid security will be refunded back on submission of performance Security. On behalf of the Principal, Indian Agent must be able to provide Performance Bank Guarantee.

12. Warranty: OEM warranty, at least 36 months from the date of successful installation of the equipment.
13. Delivery Period: The equipment should be supplied within 8 weeks from the date of receipt of the Purchase Order.
14. Liquidated Damage: In the event of failure to deliver the stores beyond the specified date, liquidated damages @ 1% per month or part thereof in respect of the value of stores will be deducted, subject to a maximum of 5%; alternately the order will be cancelled and the undelivered stores purchased from elsewhere at the risk and expense of the vendor.
15. Earnest Money Deposit (EMD): An amount of Rs. 20,000 (Rupees Twenty thousand) only (Refundable) in the form of Demand Draft drawn in favour of "Indian Institute of Technology Kharagpur", payable at Kharagpur or Bank Guarantee as per format at Annexure-II is to be submitted. E.M.D. should be enclosed separately in an envelope and stapled with the Technical Bid document super scribed with the tender no. The validity of the EMD should be 6 (six) months from the date of issue. Any bid without EMD will summarily be rejected. No interest is payable on EMD. EMD will be refunded to the unsuccessful bidder after finalization of the tender process. No interest is payable on Security Deposit. Security Deposit shall be forfeited if the selected vendor fails to execute the contract after receiving the same.
[NOTE: IIT Kharagpur will give exemption for submission of tender fee and EMD who are registered with MSME or Central Purchase Organization or startups as recognized by DIPP as per revised rule 170 of GFR-2017 only. However proper and valid document in this regard must be submitted by the bidders in support of their claim.]
16. Bid Submission: Technical Bid and Price Bid should be submitted in two separate sealed envelopes quoting reference number on the top of the envelope. Technical bid should have a copy of the price bid with costs blanked out. Tender Fee and EMD should be enclosed with the Technical Bid documents, in separate sealed envelopes, stapled with the packet containing Technical Bid documents.
17. Acceptance of Tender: The authority of IIT, Kharagpur reserves the right to accept/reject any or the entire tender bids received without assigning any reason thereof.
18. Conditional offer will not be accepted.
19. Period of Validity: Bids shall remain valid for acceptance for a period of 120 days from the date of opening of the price bid. The benefit of downward prices (revision on account of budget/financial policy, tax revision, etc.) should be given to IIT Kharagpur by the selected OEM/vendor.
20. Past performance of the vendors will be judged at the time of Technical Evaluation.
21. The Institute does not bind itself to offer any explanation to those bidders whose technical bids have not been found acceptable by the Technical Evaluation Committee of the Institute.
22. Bidders should enclose the following documents:
 - i. Earnest Money Deposit (EMD).
 - ii. Certificate of Registration/Trade License.
 - iii. PAN number and GST registration number.

- iv. IT returns for the last three years.
 - v. Copy of product literature technical leaflet, wherever applicable for which the prices have been quoted should invariably be enclosed.
 - vi. Signed copy of the tender document, with company seal, agreeing to the terms & conditions and declaration.
23. **All tenders are to** be submitted or handed over to the office of **Prof. Siddhartha Mukhopadhyay, Department Electrical Engineering, IIT Kharagpur**. The bids (technical and price bids) once submitted shall be the property of the Institute and shall not be returned to the vendor in future.
24. **The person/officer signing** the tender/bid documents should be delegated with an appropriate authority.
25. **Opening of Price Bids:** The Price Bid(s) of only those vendor(s) who are found technically qualified will be opened and the same will be opened before the technically qualified vendor(s). **The date for opening of price bids will be notified separately.**
26. Bidder or his/her authorized representative (with proper authorization letter for opening of technical bids and also for opening of price bids) may choose to be present at the time of opening of Technical Bids/Price Bids.
27. The addendum/corrigendum if any shall be published on Institute's Website and on CPP Portal.
28. The Institute at its discretion may change the quantity at any time before placing the order.
29. Copy of mandatory test reports, national testing/reliability and endurance test reports etc., certified or conducted at the manufacturing site, granted by the bureaus/quality control departments/national testing laboratories, as appropriate, should be enclosed.
30. Deviation from Specifications: It is in the interest of the tenderer to study the specifications in the tender schedule thoroughly before quoting so that, if the tenderer makes any deviations, the same are prominently brought out in the body of the tender. If you need to add any optional items to your system in order to meet our specifications, you are requested to quote for the total including the option required to suit our requirements. Otherwise, your tender will not be considered at all.
31. Guarantee: The tenderer has to declare that the goods sold to the buyer under this contract shall be of the best quality and workmanship and shall be strictly in accordance with the specifications.
32. Jurisdiction: All questions, disputes, or differences arising under, out of or in connection with the contract, if concluded, shall be subject to the exclusive jurisdiction at the place from which the acceptance of Tender is issued i.e. Jurisdiction of KOLKATA HIGH COURT. Acceptance to this effect is also necessary at the time of opening of Technical Bid.
33. Agency Commission, if any will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances.
34. **Tenderer(s), who are Indian Agents of OEMs:**
- a) Bidders should enclose / furnish the following documents / details:
 - Port of shipment and Country of origin is to be provided for each item.
 - Purchase order to be placed on: Should be mentioned in the quotation with full address.
 - Complete address and tele links for contact persons of principals and Indian agent

offices dealing with this purchase.

- Name and full address of the OEM's Banker and their swift code.
- b) Should furnish a clear declaration as follows: We declare that I am/we are Accredited Agents of the suppliers aboard.

35. **Important**

- a) A bid submitted with false information will not only be rejected but also the OEM/vendor will be debarred from participation in future tendering process.
- b) The OEMs/Vendors need to submit a certificate that they are not currently debarred or blacklisted in IIT Kharagpur for any supplies, products or services, or at present in any national organization or educational institute/university.
- c) In case of any dispute, the decision of the Director of this Institute shall be final and binding on the bidders.
- d) For any query pertaining to this bid document, correspondence be addressed to:

**Prof. Siddhartha Mukhopadhyay
Department of Electrical Engg.,**

Indian Institute of Technology Kharagpur-721302

Email: siddhartha.mukhopadhyay@gmail.com / patrashamit@yahoo.com

- e) In case the due date for submitting tender **happens to be a holiday, the same will be accepted on the next working day.** The timings will however remain unchanged. **Please Note that the Institute remains closed during Saturdays & Sundays.**

Annexure I

Technical Specifications for Video Conferencing System

1. Video Conferencing Unit: Quantity - 1 no.

Parameters	Minimum Required Specifications
Video Standards	H.261 , H.263, H263+, H.263++ , H.264 High Profile, H.264 Baseline Profile
Video Frame Rate	Should support 60 fps with 1080p resolution
Video Features	Ability to send and receive two live simultaneous video sources in a single call, so that the image from the main camera and PC or document camera can be seen simultaneously. Should support H.239 and BFCP protocols with 1080p resolution at 30fps
Multi-Point Feature	Should have 6-way SIP/H.323 in 1080p/60fps Multipoint video conference feature enabled.
Video Output	Should have at least 3 nos. of HDMI / Component (High Definition Multimedia Interface) output to connect Full High Definition display devices such as plasma and projectors for both Video and Content.(Dual Monitor Support) Should support 3 monitors for Self-View, Remote View and Content all in separate Monitors
Video Input	Should have at least 2 HD video Input to connect full HD cameras. Should have DVI/HDMI/Display port to connect PC/ Laptop directly to the Video conferencing system and display resolutions up to 1080p at 30fps
Audio standards supported	G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD or equivalent standard must be supported.
Other Desirable features	Noise Reduction, Automatic Gain control, Acoustic Echo Canceller,
Audio Inputs	Should support 4 Microphone inputs. Bidder should supply 3 tabletop omni-directional conference microphones. The microphones must be standard based microphones. The pickup of the microphones should be at least 10 feet from the microphone Echo Cancellation for every input must be available
External devices	Should have USB port , support USB recording
Network Interfaces	2 LAN /Ethernet-10/100/1000 Mbps full duplex. Should have support for IPV4/IPV6 networks
Bandwidth	IP at least 6 Mbps and up to 18 Mbps, for Point-to-Point at least 1.5Mbps
Security : Menu Control	Password protected system menu
Encryption of video call	<ul style="list-style-type: none"> • ITU-T standards based Encryption of the video call • Call should be encrypted end-to-end on IP • Should support Standards-based: SRTP (AES 128 bit), H.235 (AES 128 bit)
Camera Specifications:	One 12x optical zoom camera with 1920x1080p 60 frames per second. Pan range: +/-100 degrees, Tilt range: +/-20 degrees

2. Display Unit (Wall mountable): Quantity - 2 nos.

Parameters	Minimum Required Specifications
Display Technology	LCD panel with LED backlit
Screen Size	65 inch
Image Aspect Ratio	16:9
Display Resolution	1920x1080 Pixels
Ports	HDMI: 2 ports, USB: 2 ports
Audio output	10W + 10W or better
Mounting	Tilt swivel wall mounting kit

3. 4x4 HDMI 4K Matrix Switcher: Quantity - 1 no.

Parameters	Minimum Required Specifications
Input	4 x HDMI input
Output	4 x HDMI output
Resolution Support	4k including 1920x1200 & 1080p
Data rate	Up to 10.2 Gbps or higher
Audio Input / Output	Input: Embedded for all HDMI input : Output: Inbuilt Minimum 2x Stereo balanced/unbalanced audio output or supplied with HDMI audio de-embedder
HDMI audio Features	Support HDMI audio de-embedding & Audio breakaway
Switching Presets	Should have 20 or more switching presets stored for quick recall from front button or control system
HDCP & EDID	Should be HDCP compliant & have inbuilt EDID management
HDMI video features	Automatic input cable equalization & automatic output signal re-clocking
Controls	Front panel buttons with indication, Ethernet
Approved Makes	Extron / Crestron / AMX or substantially equivalent

4. Integrated Web Conferencing System for large meeting room: Quantity - 1 no.

The system should comprise integrated PTZ camera and speakerphone in one unit with necessary interconnect hub and cables, complying the following specifications:

Parameters	Minimum Required Specifications
PTZ Camera	<ul style="list-style-type: none"> a) Video resolution: Full HD 1080p with onboard UVC and H.264 SVC b) Optical zoom: ≥ 10X c) Pan: ≥ 260 degree, Tilt: ≥ 130 degree d) Field of view: ≥ 90 degree e) Focus: Auto f) Camera control: From remote or console (both local and far end) g) Presets: ≥ 5 h) Mounting arrangement: Standard tripod thread
Speakerphone	<ul style="list-style-type: none"> a) Full duplex speakerphone with acoustic echo cancellation and noise suppression b) LCD display unit for caller ID, call duration and other functions c) Indicators for speakerphone streaming, mute, hold and Bluetooth wireless pairing d) Touch controls for call answer/end, volume and mute, camera PTZ <p>Microphone pickup range : Omnidirectional ≥ 20 ft diameter range Speaker output : ≥ 91 dB SPL</p>
Compliance	<ul style="list-style-type: none"> a) USB 2.0 compliant b) UVC compliant and optimized for Skype, CISCO Jabber, WebEx
Accessories	<ul style="list-style-type: none"> a) Expansion microphones: 2 Nos. b) Camera wall mount: 1 No. c) Extension cable: 10 meter extended DIN Cable from OEM
Make & Model	Logitech Group or Substantially Equivalent

Warranty: Minimum 3 (Three) year warranty should be provided for the entire system (for all items) from the date of successful commissioning. Manufacturers' warranty part number should be quoted.

Installation to be done with all required cables, accessories and rack/stand/mount as required. Bidder to ensure that the hardware and software components are compatible with each other, and provide all necessary accessories for connecting and installing the supplied components. No additional cost will be paid for this during or after installation.

ANNEXURE – II

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

Whereas(hereinafter called the "tenderer") has submitted their offer dated for the supply of (hereinafter called the "tender") against the purchaser's tender Notice No.

KNOW ALL MEN by these presents that WE of having our registered office at are bound unto (hereinafter called the "Purchaser") in the sum of for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this Day of 20

THE CONDITIONS OF THIS OBLIGATION ARE

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:
 - (a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - (b) Fails or refuses to accept/execute the contract.

WE undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch