

CENTRE FOR CONTINUING EDUCATION
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
Chennai – 600 036

Announcement No: CCE/VC Studios/002 Dated: 06-07-2018

Quotations are invited as sealed bids from Original Equipment Manufacturers (OEM) or authorised Dealers of OEMs with Service support in Chennai for **supply of Multi-Point Control Unit- MCU**. Authorised dealers should attach an authorisation certificate from the OEM they represent for being considered.

Pre-qualifying Condition:

The pre-qualifying condition is that the vendor should have previous experience of having sold and installed at least **three similar units** or their higher versions to Premier Educational Institutions / MNCs / Governmental bodies / Reputed broadcasting companies **within** the last three financial years.

Specification of the Multi Conference Unit (MCU):

Table 1: SPECIFICATIONS	
MCU system Capacity	
	The MCU should be a dedicated standalone equipment . The hardware and all required software should be supplied and supported by a single bidder.
	The entire hardware to support the required capacity and specifications should be supplied as one unit.
	The MCU should support 10 Ports at HD 1080p30 (transmit and receive) at 4 Mbps or more on IP in continuous presence mode with 30 fps and H.264 resolution and AES encryption. The Same MCU should be capable of working with a resolution of 720p 30fps (transmit and receive) under which condition it should support a minimum of 20 ports. Option should be available to increase the number of ports to 40 under HD (1080p) resolution at a later stage with no additional hardware but only a software upgrade.
	The MCU should also be capable of supporting 10 simultaneous conferences each at 4 Mbps bandwidth concurrently.
	All necessary hardware and software to support the above capacity needs to be supplied and functional from day one.
	The MCU should support H.320 with at least 2 PRIs on the same box without loss of capacity or functionality in future.
	The MCU should support calls from room based video conferencing endpoints, desktop, laptops, ipads present on the internal/external network of the IIT Madras. The MCU should interoperate with endpoints of all OEMs.
Video /content Standards and Resolution	
	It must be possible to see at least 16 sites simultaneously in a single layout on the display . The MCU should support a minimum 10 preset layouts.


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 CCE & QIP CO-ORDINATOR
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	The MCU should support H.239 and encryption in ISDN,SIP & H.323 modes The MCU should be able to integrate with call control system using SIP.
	The Proposed MCU should be able to combine Full HD and SD in the same conference without degrading the full HD resolution, from and to the full HD endpoints. The MCU should interoperate with other OEM product endpoints. The supported mediums should be IPv4 and IPv6.
	Audio standard and features
	Audio 1.G.711,G.722,64 kbps MPEG 4 and /or G.722.1 2.Echo cancellation 3.Automation noise suppression 4. Automatic gain control. 5.Adaptive post filtering /standard based packet loss recovery
	IP Protocols
	The MCU solution should support H.323 and SIP calls on 2 Mbps The MCU must have 2 dedicated 10/100/1000 Mbps full duplex manual and auto sensing Ethernet interfaces for diverse IP communication and dedicated serial/USB connection for maintenance /upgrade.
	MCU Features
	The MCU should support 16:9 and 4:3 aspect ratio.
	The Equipment should be IPv6 compatible.
	The MCU should support a mix of resolution in both voice Activated mode and continuous presence.

Terms & Conditions:

1. Please note that a 2 bid system as mentioned below should be followed:

- **Technical bid and Commercial bid have to be submitted in separate sealed envelopes with clear indications on each envelope.**
- **Both of these separately sealed bids should be enclosed in a larger envelope superscribed with tender number and vendor details indicated on them.**

2. The technical bid should not contain any commercial terms failing which the bidder will be disqualified.

3. All technical details including specifications, prequalification conditions indicated above, must be clearly given in the technical bid.

4. Type of warranty without indication of commercial terms should also be mentioned in the technical bid.

5. The commercial bid should contain all commercial terms including, delivery of equipment at CCE office, IIT Madras. Installation and those related to warranty and other costs.

6. The bidders should comply with all specifications. A separate compliance sheet indicating whether each specification mentioned in Table 1 is met. This is to be indicated point by point for all the specifications mentioned in Table 1. A table to this effect should be enclosed duly attested by the bidder in **the Technical Bid.**

7. **Do not quote for any optional items or additional items.**
8. **Last date for receiving of the bids at the address mentioned below is 24th July 2018 (5 PM).**
9. **Opening the Technical Bid:** The technical bid will be opened on 27th July 2018 at **IIT-Madras** and only the financial bids of those bidders who are technically qualified will be opened at a later date after intimation to the technically qualified bidders.
10. All the technically qualified bidders should provide a fully integrated demo of the equipment that is being offered and also show the capability of their equipment to integrate and function properly with our existing Polycom VC systems and also one other make of VC system that the bidder has to bring for the demo. Mains power supply and place for the demo will be provided by IIT Madras.

Period of validity of Bids

Bids should remain valid for a period of 60 days after the last date for submission. A bid valid for a shorter period will be rejected by IIT Madras; However, IIT Madras may seek extension of the validity of the bid, if required.

Delivery Schedule:

The **bidder** should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.

Payment:

No Advance payment will be made for Indigenous purchase. However, 50% Payment against Delivery and remaining 50% payment after successful installation and commissioning are agreed to wherever the installation is involved. In case of import of supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done).

On-site Installation:

The equipment has to be installed or commissioned by the successful bidder within 20 days from the date of receipt of the item at site of IIT Madras.

Vendor Details:

Vendors should provide their full contact details including: Name of the Contact Person, Postal address, Tel. No., Mobile No., Email and FAX Nos., in both the bids. **In addition these contact details also should be indicated on the outer surface of the main envelope that contains the Technical and Financial Bids.**

Onsite Warranty:

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The Supplier should confirm that the Products supplied under the tender are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Tender.

Warranty for the supplied product should remain valid for a minimum period of 36 months after installation. In case of failure in functionality of the supplied equipment the warranty should ensure that alternate equipment is made available by the supplier at no cost within one working day of notification if the existing supplied equipment requires warehouse service.

In addition upon receipt of registering a complaint, the Supplier should with all reasonable speed, repair or replace the defective Product or parts thereof, without any additional costs within 7 days of notification.

Clarifications:

If bidders need any further information, they may contact CCE office at the address given below from **10.00 AM to 04.00 PM on all working days- Monday to Friday (except Public Holidays).**

The bidders can communicate for any clarifications required through email With the subject given as "Tender for MCU- IIT Madras". The following is the email address:

cceoffice@iitm.ac.in

Acceptance and Rejection:

IIT Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.

Disputes and Jurisdiction: Settlement of Disputes:

Any dispute, controversy or claim arising out of or in connection with this tender including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. The seat of arbitration should be at IIT Madras, Chennai.

All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

Important Note:

- **Two bids (Technical and Commercial bids) separately sealed and also put into a single large envelope and sealed) should reach the office of Chairman, Centre Continuing Education at the address given below within the stipulated time and date.**
- **Please note that both of these separately sealed bids should be enclosed in a larger envelope superscribed with tender number and vendor details on them.**
- **The technical bid should not contain any commercial terms failing which the bidder will be disqualified.**

Address to which the bids have to be delivered:

The Chairman,
Centre for Continuing Education,
3rd Floor, IC & SR Building,
Indian Institute of Technology Madras,
Chennai – 600 036
Phone No. : 044 22574900, 4904, 5903.

**Last date for receiving of the tenders at the above address
is 5.00 pm on 24th July 2018.**

A. Ramesh

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