

	<p style="text-align: center;">INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036</p> <p style="text-align: center;">Telephone: (044) 2257 4860 E-mail: ckm@iitm.ac.in</p>	
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Prof.Ranjit Kumar Nanada

Ref: PHY/Nanda/2022/Video System

Dated: 05.12.2022

Limited Tender No: PHY/Nanda/2022/Motion Video Capturing System

GEM NAR ID: GEM/GARPTS/01122022/CLWS4CJ9JCI5

Due Date: 12.12.2022, 4:00pm

Pre-Bid meeting: - NA.

Bid opening meeting on Due Date: 13.12.2022, 4:00pm

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of “**Motion Video Capturing System**” conforming to the specifications given in (Annexure IV)

As per the Government of India Order, only “Class - I Local Suppliers” and “Class - II Local Suppliers” can participate in this tender.

Participation of Non local supplier may be subject to the limitation provided in para 4 (Exemption of Small Purchases) of DPIIT circular No.P-45021/2/2017-PP(BE-II) Dt 16.Sep.2020

Terms and Conditions of Limited Tender

- 1) **Preparation of Bids:** - The Limited tenders should be submitted under **Two bid system** (i.e.) Technical-cum-Financial bid.
- 2) **Submission of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier (**duly sealed and super scribed on the envelope with the Vendor Email ID, Contact Number, tender reference No and due date & time**) so as to reach the following address before the due date and time specified in our Schedule:
Prof. Ranjit Kumar Nanada
Department of Physics,
IIT Madras, Sardar Patel Road,
Chennai - 600 036.
- 3) **Opening of the tender:** - The offer/ bids will be opened by a committee duly constituted for this purpose. The technical bids will be opened first and will be examined by a technical committee which will decide the suitability of the bids as per our specifications and requirements. All bidders will be invited for opening of the technical bids. For opening the financial bid, only technically qualified bidders will be called.
- 4) **Price:** - The price should be quoted only in INR net per unit (after breakup) and must include all packing, transit insurance and delivery charges to the **Department of Physics.**
 - a. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be

clearly indicated separately.

- b. For the same tender, either the OEM or the authorized dealer/service provider can only quote. But both of them cannot quote separately for the same tender.

5) Terms of Delivery: -

Supplier will be fully responsible for the safe carriage of goods upto the **Department of Physics**, IIT Madras or a named place, as per PO. The transit Insurance coverage will be in the scope of the supplier. The Installation/Commissioning should be completed as specified in our important conditions.

6) Delivery Schedule: - The tenderer should indicate clearly the time required for delivery of the item (subject to the approval of the Executive Committee of IIT-Madras). 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.

In the event of **delay or non-supply of materials/execution of Contract** beyond the date of delivery/completion of job, penalty will be levied @1% per week of delay subject to a max of 10% of the value of purchase order and if the delay is more than accepted time frame by IIT M, the PO would be cancelled and liquidated damages will be enforced.

7) Catalogue: Original catalogue (not any photocopy) of the quoted model duly signed must accompany the quotation in the Technical-cum-financial bid

8) Late offer: - The offers received after the due date and time will not be considered

9) Payment: - No Advance payment will be made. However, 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved.

10) Advance Payment: - No advance payment is generally admissible. In case a specific percentage of advance payment is required, the Vendor has to submit a Bank Guarantee from a Scheduled Commercial Bank of India equivalent to the amount of advance payment.

11) On-site Installation: - The equipment or machinery has to be installed or commissioned by the successful bidder within the number of days (as prescribed by PI's) from the date of receipt of the item at the site of IIT Madras.

12) Warranty/Guarantee: - The offer should clearly specify the warranty or guarantee period for the machinery/equipment.

**** Note: PO which involves installation, warranty/guarantee shall be applicable from the date of installation.**

13) Validity: Validity of Quotation should be not less than **90 days** from the due date of tender

14) Accept /Reject: IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.

15) Debarment from Bidding: In case of breach of Terms & Conditions, Bidder may be suspended from being eligible for bidding in any contract with the IIT Madras up to 2 Years [as per Rule 151(iii) of GFR] from the date of Tender.

16) Disputes and Jurisdiction:

Settlement of Disputes: Any dispute, controversy or claim arising out of or in connection with this PO 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. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the competent authority will nominate arbitrator and Presiding Arbitrator of the arbitral tribunal. The arbitration proceeding shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at Department of Physics, IIT Madras, Chennai.

- a. **The Applicable Law:** The Purchase Order shall be construed, interpreted and governed by the Laws of India. Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.
- b. Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.

17) All Amendments, time extension, clarifications etc., will be uploaded in the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

18) **Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.

19) Eligibility Criteria:

- **As per the Government of India Order, only “Class - I Local Suppliers” and “Class - II Local Suppliers” can participate in this tender.**
- **Bidder should confirm their acceptance that they comply with the provisions with report to “Guidelines for eligibility of a bidder from a country which shares a land border with India as detailed at Annexure-IV. The bidder should submit Certificate for “Bidder from/ Not from Country sharing Land border with India & Registration of Bidder with Competent Authority” as per Order of DoE F.No.6/18/2019-PPD dated 23.07.2020 as mentioned.**

20) Selection of Successful bidder and Award of Order.

The order will be awarded to the technically qualified bidder as per the condition in para 3A of DIPP, MoCI Order No. 45021/2/2017-pp (BE II) dated 16th September 2020 & P- 45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021 and any subsequent modifications/Amendments, and latest orders if any.

21) **Preference to “class I Local Suppliers”:** In case of value of goods/works exceeding Rs 5 lakh (inclusive of taxes) preference will be given to “class I local suppliers” (subject to class -I local supplier’s quoted price falling within the margin of purchase preference) as per public procurement (preference to Make in India) order 2017 .O.M No P- 45021/2/2017 – pp(BE - 11) dt 04/06/2020 subject to the conditions that the “Class I Local Supplier” should agree to supply goods / provide service at L1 rate and furnish a certificate with the bid document that the goods/service provided by them consists local content equal to or more than 50%..

- **‘Class - I local supplier’** means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to or more than 50% as defined under the above said order. **Declaration to be provided as per Annexure-I per item/service/work.**
- **‘Class - II local supplier’** means a supplier or service provider whose goods, services or works offered for procurement consists of local content equal to 20% but less than 50% as defined under the above said order **Declaration to be provided as per Annexure-I per item/service/work.**
- **‘Margin of purchase preference’**: - The margin of purchase preference shall be 20%. The Definition of the margin of purchase preference is defined in the Govt. of India Order No: P-45021/12/2017-PP(BE-II) Dt.4th June, 2020) Order 2017. **As per the Government of India Order – “Margin of Purchase Preference” means the maximum extent to which the price quoted by a “Class-I local supplier” may be above the L1 for the purpose of purchase preference.**

**** Note: Local content percentage to be calculated in accordance with the definition provided at clause 2 of revised public procurement preference to Make in India Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P- 45021/102/2019-BE- II- Part(1) (E-50310) Dt.4th March 2021**

22) Bid Opening: - The technical cum financial bid will be opened on **12.12.2022 4 :00pm** at the **Department of Physics, IIT Madras.**

For Site Visit: Bidders will be allowed to visit the dept for site seeing from 2.12.2022 to 06.12.2022 @ 10.00 am to 4.00 pm to the Physics Dept, IIT Madras, Chennai – 600 036, Contact No. 044-2257 /5860/4850.

Acknowledgement: - It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

**SIGNATURE OF TENDERER
ALONG WITH SEAL OF THE
COMPANY WITH DATE**

Yours sincerely,

**Prof. Ranjit Kumar Nanda,
Department of Physics
IIT Madras, Sardar Patel Road,
Chennai - 600 036**

**FORMAT FOR AFFIDAVIT OF SELF-CERTIFICATION UNDER PREFERENCE TO
MAKE IN INDIA – PER ITEM**

Tender Reference Number:

Name of the item / Service:

Date: _____

I/We _____, S/o, D/o, W/o, _____ Resident of

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020) MOCI order No. 45021/2/2017-PP (BE II) Dt.16th September 2020 & P- 45021/102/2019-BE-II-Part(1) (E-50310) Dt.4th March 2021 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said item/service/work has been verified by me and I am responsible for the correctness of the claims made therein.

Tick (✓) and Fill the Appropriate Category	
<input type="checkbox"/>	I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to or more than 50% and come under “ Class-I Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the supplier] hereby confirm in respect of quoted items that Local Content is equal to 20% but less than 50% and come under “ Class-II Local Supplier ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items that Local Content is less than 20% come under ‘ Non – Local Supplier ’ category

- The details of the location (s) at which the local value addition is made and the proportionate value of local content in percentage

Address _____ Percentage of Local content: _____ %

For and on behalf of (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.]

This letter should be on the letterhead of the quoting firm and should be signed by a competent authority.

Non-submission of this will lead to Disqualification of bids.

TENDER CHECKLIST – Mandatory to be filled and sent (inside the Main Bid Cover) along with Bidding Document.

1. Technical – cum - Financial Bid
 2. Completed and **Signed Form of Tender**. The Form of Tender document shall be signed by a person legally authorized.
 3. Completed Technical Compliance Statement.
 4. Evidence of similar contracts completed/Product supplied in case if the details are requested in Annexure - IV
 5. Certification of Class I / Class II Local supplier to be submitted (**as a Part of technical bid) per item / service / work** (Annexure – I)
 6. Land Border (Annexure – III)
 7. Authorized agent certificate from OEM is mandatory if Indian agent/Indian office of OEM is participating in this tender on behalf of OEM.(As per Annexure – V)
- The above documents should be provided for a contractor’s bid to be valid. Bidders are asked to supply and tick off the required information. Failure to provide any of the stated documents may result in the bid being considered non-compliant and rejected.

Signature of the Bidder

Annexure – III

(To be given on the letter head of the bidder)

No. _____

Dated: _____

CERTIFICATE

(Bidders from India)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I am not from such a country.

OR (*whichever is applicable*)

(Bidders from Country which shares a land border with India)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and hereby certify that I from _____ (Name of Country) and has been registered with the Competent Authority. I also certify that I fulfil all the requirements in this regard and is eligible to be considered. *(Copy/ evidence of valid registration by the Competent Authority is to be attached)*

Place:

Date:

Signature of the Tenderer
Name & Address of the
Tenderer with Office Stamp

TECHNICAL SPECIFICATION

Video System

Multimedia Projector: (1 No.)

Brightness	-	5000 ANSI Lumens
Display System	-	3LCD System
Number of pixels	-	3,072,000 (1280 x 800 x 3) pixels
Throw Ratio	-	1.29:1 to 2.07:1
Light Source	-	Laser diode
Speaker	-	16W
Computer signal input	-	Maximum signal resolution: 1920 x 1200 *4
Video Signal input	-	NTSC, PAL, SECAM, 480/60p, 576/50i, 720/60p, 720/50p, 1080/60i, 1080/50i The following items are available for HDMI input only; 1080/60p, 1080/50p, 1080/24p
Keystone Correction	-	H/V +/- 30 degrees
Input Connectors	-	Mini D-Sub 15 Connector x1 HDMI x 2 RCA x 1, Audio
Audio Input/Output	-	3.5mm Jack
Remote	-	RS232C
LAN	-	RJ45, 10BASE-T/100BASE-TX
USB	-	Type A

Motorized Projection Screen: (1 No.)

Size	-	123” diagonal
Aspect Ratio	-	16:10
Remote	-	LVC & Up/down switch
Screen Type	-	Matt White
Viewing Area	-	65” x 104”

4K Professional Display: (2 No.)

Size	-	65” Diagonal
Panel Resolution	-	3840 x 2160p 4K UHD
Brightness	-	350Nits
Contrast Ratio	-	1200:1
Response Time	-	8ms
Video Input	-	HDMI(2.0) x 2, USB 2.0x1, USB 3.0x1
Audio Input	-	3.5mm Jack x 1
Audio Output	-	3.5mm jack x 1
External Control	-	Rs232C (In/Out), 2.5mm jack, RJ45

Auto tracking Camera: (1 No.)

Camera Type	-	Fixed
Control Method	-	Telnet, Touch Screen , Web UI.
Field of View	-	70.2 degree wide end, 3.1degree tele end

Field of view wide	-	Greater than 70
Focus System	-	Auto, Manual
Input ports	-	Audio, Network, USB 3.0
Invertible	-	Yes
Gain	-	Auto, Manual
Image sensor Type	-	1 / 2.5-type Exmor R CMOS sensor
Output Ports	-	HDMI, Audio, IP streaming, Network, USB 3.0
	Type B	
Pixels	-	8.51MP
Power type	-	POE+
Preset Positions	-	16 Custom Home Position
Top Resolution	-	1080p@ 30Hz
Zoom	-	30x
Zoom Range	-	Greater than 19x
White Balance	-	Auto/Manual/One push.

Wireless Presentation Gateway: (1 No.)

Video	-	H.264 Compression
Audio	-	LPCM 2.0
Resolution	-	upto 1080p@30 resolution
Ethernet	-	10/100/1000-Base-T RJ45 LAN
Wireless	-	Miracast P2P: 802.11ac dualband non-DFS Infrastructure: 802.11n dualband non-DFS
Authentication	-	WPA-PSK (TKIP), WPA2-PSK (AES), PEAP-MSCHAP V2 (TLS 1.0),EAP-TLS (TLS 1.0)
Interfaces	-	HDMIx1,1xVGA output,1xVGA Input (Pass Through), 1x analog 3.5mm audio output, 1xUSB 2.0 Host Type A.
Content Protection	-	HDCP 2.x
Wireless display over Wifi direct P2P requires	-	Windows 10/8.1, Android 4.2 (or later)
Wireless display over Existing network requires	-	Windows 10build 1809 (or later), IOS 10(or later) , macOS 10.9(or later)

Button Panel control system: (1 No.)

Memory SDRAM	-	512MB
Memory Flash	-	512MB
Connector	-	1 female RJ45 connector
Data rate	-	10/100/1000 BaseT, half, full duplex with Auto detect
Protocols	-	DHCP, DNS, HTTP, HTTPS, ICMP, NTP, SFTP, SNMP, SSH, TCP/IP, UDP/IP, SMTP.
Serial Port type	-	2 bi directional – RS232C
Digital input	-	1 digital input
Connectors	-	3.5mm captive screw connector, 2 pole
Baud rate & Protocol	-	300 to 115200 baud (9600 baud = default); 8 (default) or 7 data bits; 1 (default) or 2 stop bits; no parity (default), even, or odd parity.
IR Port	-	1 TTL level (0 to 5 V) infrared (carrier and non-carrier) up to 300 kHz.
Relay	-	2 Normally open relays

Volume control - 1 Volume control.

Multiview Presentation Switcher: (1 No.)

Video Inputs - 4x HDMI 2.0a
Video Outputs - 2xHDCP 1.4/2.2
Bandwidth - 18Gbps, Upto 4K2K@60 (4:4:4)
USB - USB 3.0 Superspeed Type B Female, capture Upto 4K2K@4:4:4(8bits)
USB Recording - USB 2.0 Type B Female 1080p60 recording
Audio - PCM2, PCM5.1, PCM7.1, Dolby5.1, DTS5.1, DD+, D-TrueHD, DTS-HD 16/20/24 bits per sample up to 96kHz Sampling Rate.
1x Digital Toslink embedding
1x Stereo L/R 3.5mm audio jack embedding
1xDigital Toslink Deembedding
1x Stereo L/R 3.5mm audio jack de embedding
1xBal-Stereo 6pin phoenix connector
Mic Input - 1x3.5mm audio jack, 1x3pin Phoenix Connector, 48V Phantom and line level audio support.
Control - RS232, IP, IR Remote.

Decora Plate Extender (1 No.)

HDMI Transmitter - Input - 1xHDMI, Output – 1xRJ45
HDMI Receiver - Input – 1xRJ45, Output – 1xHDMI
Video Bandwidth - 4.85Gbps
Video Resolution - 480P60~1920x1080@60Hz
HDMI Audio formats - PCM2.0/5.1/7.1CH,Dolby Digital Dolby True HD, DTS
Transmission - 50M (1080p)

HDMI Splitter (1 No.)

HDMI Input - 2xHDMI Type A
HDMI Output - 4xHDMI Type A
TCP/IP - 1xRJ45
RS232C - 1xDb9Port
Audio - 1xAnalog L/R Output, 3-Pin 3.5mm Phoenix
1xdigital SPDIF Output, Toslink Connector
Video resolution - Up to 4K@60Hz 4:4:4 8 bit
Video Bandwidth - 18Gbps
Embedded Audio - LPCM 7.1 audio, Dolby Atmos®, Dolby® True HD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through.
De- Embedded Audio - Analog L/R Out: PCM.
Digital Out: PCM, Dolby Digital, DTS, DTS-HD.

HDMI Extender (4 Nos.)

Transmission Range - 1080p 24Bit color upto 164'
HDMI Transmitter - Input – HDMI, Output – RJ45
HDMI Receiver - Input – RJ45, Output – HDMI
Bandwidth - 4.95Gbps
Supported Resolution - Upto 1080p@60Hz
Audio Supported - Upto 7.1ch or stereo digital audio.

USB Switch**Connectors: (1 No.)**

Computer	-	4xUSB Type B Female
Devices	-	4xUSB Type A Female
Serial	-	1x5 pin terminal Plug
USB Cable	-	2x USB 3.2 Gen 1 Type-B to Type-A Cables 1.2M 2x USB 3.2 Gen 1 Type-B to Type-A Cables 1.8M
Remote Port Selector	-	1.8m

USB Extender (1 No.)

USB Port	-	1 x USB3.2 Gen1 Type A Male
Downstream	-	1 x USB3.2 Gen1 Type A Female
USB Specification	-	USB3.2 Gen1 / 2.0 / 1.1 for Super / High / Full or Low speed
Data Rate	-	Upto 5Gbps
Cable Length	-	15m.

HDMI Cable 3 (2 Nos.)& 6 ft (10 Nos.)

HDMI Maximum Video Compatibility	-	4K@60Hz 4:4:4 up to 10 feet, HDR Support.
Video Compliance	-	HDMI, HDCP & CEC
Embedded Audio	-	Upto 32 audio channels.
Minimum bandwidth	-	18Gbps
Ethernet	-	100Mbps
Cable construction	-	30AWG tinned copper TMDS pairs.
Jacket material	-	Flexible flame rated PVC
Operating Temperature	-	0° to +75°C

USB Cable: (4 Nos.)

Version	-	USB 1.1, 2.0 and 3.0 complaint
Housing	-	Molded PVC connector
Connectivity	-	USB A to USB B
Length	-	6 feet.

OTHER IMPORTANT TERMS AND CONDITIONS

- Authorized agent certificate from OEM is mandatory if Indian agent/Indian office of OEM is participating in this tender on behalf of OEM.
- The bidder or OEM should have supplied at least 5 similar supply to IIT's/NIT's/IISCR's/CSIR Labs or other Govt R& D organizations.
- Purchase Orders or Installation certification along with contact details of end-user need to be submitted as proof of supply. IITM reserves the right to verify the claims within 3 years in similar supply.
- Brand/Make Sony, Philips, Epson.

OEM CERTIFICATION FORM
(In Original Letter Head of OEM)

Tender No: Dated:

We are Original Equipment Manufacturers (OEM) of..... (Name of the company)

Ms..... (Name of the vendor) is one of our

Distributors/Dealers/Resellers/Partners (tick one) for the

..... and is participating in the above-mentioned
tender by offering our product model.....(Name of the product with model number).

..... is authorized to bid, sell and provide service support
warranty for our product
as mentioned above.

Name and Signature of the authorized
signatory of OEM along with
seal of the company with Date