

### भारतीय प्रौद्योगिकी संस्थान

#### INDIAN INSTITUTE OF TECHNOLOGY

(काशी हिन्दू विश्वविद्यालय)

(BANARAS HINDU UNIVERSITY)

# रासायनिक अभियांत्रिकी एवं प्रौद्योगिकी विभाग

DEPARTMENT OF CHEMICAL ENGINEERING & TECHNOLOGY

(ऊच्चाबुशीलन केन्द्र एवं डी एस टी प्रायोजित 'फिस्ट' विभाग) (CENTRE OF ADVANCED STUDY & DST DEPARTMENT UNDER FIST)

(वाराणासी - २२१००५) Varanasi - 221005

#### QUOTATION ENQUIRY

Ref: ChE/2020-20/QTN/ C Posting Date: 16.09.2020

Tender Closing Date: 07.10.2020

Date 16.09.2020

Tender Opening Date: 08.10.2020

Dear Sir,

Please submit your lowest rate for supplying the under mentioned items. Quotations in duplicate reach us before the date marked above and should contain the following information:

- Full specification and make of the item offered and its rate F.O.R. Varanasi.
- 2. GST at concessional rate as applicable to educational institution.
- 3. Your VAT/GST registration number, PAN&TAN numbers.
- 4. Conditions of supply and terms of payment.

If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.

- 5. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
- 6. Please give undertaking as per annexure-I-B and annexure-I-C

Quotation must be sent in a Sealed Envelope with word "QUOTATION", our reference number, and due date as given above, clearly marked over it

| S.<br>No. | Item                      | Specification                      | Qty |
|-----------|---------------------------|------------------------------------|-----|
| 1         | High Speed                | Details Sepcification is attached. | 01  |
| v to      | Steaming Camera<br>System |                                    |     |

N.B: Other terms & conditions pertaining to item mentioned above, shall be mentioned below: in the office of the Head, 02.00 PM at The sealed quotations will be opened on 08.10.2020 Department of Chemical Engineering & Technology, IIT(BHU) (This is mandatory in case of e-publishing)

> Head of the Department Chemical Engg & Tech HE(BHU)

विभागाध्यक्ष / Head रासायनिक अभियांत्रिकी प्रौद्योगिकी विभाग Department of Chemical Engg. & Tech. भारताय प्रौद्योगिकी संस्थान/Indian Institute of Teehnology काशी हिन्दू विश्वविद्यालय/Banaras Hindu University वाराणसी /Varanast-221085

Fax (फैक्स): 091-0542-2368092; Email: head.che@itbhu.ac.in

**3** 0542-2368092, 6702029, 6702024

| 1  | Cable USB 3.0 Micro B screw lock/A 3m   |
|----|---|
| 2  |   |
| 3  | Camera Baseplate with 1/4" Tripod mount   |
| 4  | Software for Recording the video and images to PC RAM or PC Hard disk.  |
| 5  | Lens 1: 12mm F/1.4  |
| 6  | Lens 2: 50mm F/2.8  |
| 7. | Suitable Tripod   |
| 8  | Transport Case  |
| 9  | LED Light :150W LED bulbs guarantee 7200lux@1m high brightness, creates stable light resource and even illumination for video recording |

### List of Deliverables

| S. No. | Description  | Qty.  |  |
|--------|--|-------|--|
| 1      | HIGH SPEED CAMERA COLOR with lockable USB 3.0 MICRO B Connector          |       |  |
|        |  | 1 Set |  |
|        | Along with following accessories:  |       |  |
|        | a) Cable USB 3.0 Micro B screw lock/A 3m                                 |       |  |
|        | b) Ingger Cable 0.5M   |       |  |
|        | c) Camera Baseplate with 1/4" Tripod mount                               |       |  |
|        | d) Software for Recording the video and images to PC RAM or PC Head did  |       |  |
|        | ,  |       |  |
|        | f) Lens 2: 50mm F/2.8  |       |  |
|        | g) Suitable Tripod   |       |  |
|        | h) Transport Case  |       |  |
|        | i) LED Light :150W LED bulbs guarantee 7200lux@1m high brightness,       |       |  |
|        | creates stable light resource and even illumination for video recording, |       |  |
|        | and over multimation for video recording,                                |       |  |

#### General Terms:

- Technical Compliance Statement: A Compliance Statement should be enclosed along with the Technical Bid clearly mentioning the technical details of the Equipment offered against each technical specification mentioned. Deviation to any of the Technical Specification should be highlighted, if not provided or not properly filled will be considered as specifications not met. Offers will not be considered if Compliance Statement is not enclosed.
- Vendor should provide an authorization letter from manufacturer confirming the authorization, originality of equipment, & after sales service support.
- 3) Warranty: 1 Years from the date of acceptance of stores.
- 4) Installation & commissioning: Should be in the scope of supply
- 5) Manuals: A set of system operating manuals should be supplied.

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## **Technical Specifications of High Speed Camera System**

### 1. High Speed Streaming Camera System

| Sr. No. | Specification      |    |   |
|---------|--------------------|----|---|
| 1.      | Sensor             | 12 | CMOS Sensor   |
| 2.      | Speed / Resolution |    | 1280x1024 @ 203 fps or higher   |
|         |                    |    | 800x600 @ 511 fps or higher   |
|         |                    |    | 640x480 @ 751 fps or higher   |
|         |                    |    | 320 x 240 @ 2070 fps or higher  |
| 3.      | Shutter Type       | :  | Global, independent of frame rate   |
| 4.      | Exposure Time      | -  | Free adjustable from 59 µsec to 1 / fps by software or better   |
| 5.      | Image Memory       | 1  | NO inbuilt memory. Sequences download to PC HDD   |
| 6.      | Recording Time     | 1  | Minimum 32 minutes recording with above resolution /fps,  |
|         |                    |    | Stream in to Controller HDD.  |
| 7.      | Light Sensitivity  | :  | ISO 2400 color, ISO 3600 mono   |
| 8.      | Dynamic Range      | 1  | 8 bit or better   |
| 9.      | Data Interface     | 1  | USB Interface for both power and communication.   |
| 10.     | Environmental      | 1  | 0°C   |
| 10.     | Specifications     |    | b. storage temperature: -40 +70 °C  |
| 11.     | Power              | 1  | Power over USB  |
| 12.     | Camera mount       | :  | C-mount   |
| SOFTW   | ARE:               |    |   |
| 13.     | Camera Software    |    | <ul> <li>Parameterization: camera control, recording setting, Playback and data conversion.</li> <li>Motion Detection: motion trigger and motion event marking in file.</li> <li>OSD (on screen display): Information on camera recording features, time stamp, and camera name may be added in image data, Position of OSD is set by user.</li> <li>Auto store function: Auto-store function in PC for 24/7 recording supported</li> <li>Trigger Modes: pre-post recording, adjustable by software to 0% 10% / 25% / 50% / 75% / 90% / 100% of total available recording time. Re-arm after trigger for instantaneously new recording.</li> <li>Snap Shot: snap shot of live image supported.</li> <li>File formats: recording in AOS native format for performance reasons, conversion to avi, mpeg, mpeg4 single image format</li> </ul> |

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