



Ref No: ICTS/TIFR/RFQ/68/2018-19

Date: 20/12/2018

**ENQUIRY**

To,

Dear Sir,

**Subject: Enquiry for the Supply, Installation and Commissioning of CCTV cameras**

**Scope of Work:**

**Supply, Installation and Commissioning of CCTV cameras**

**Sealed tenders are invited under 2 cover system from reputed OEM (Original Equipment Manufacturer) / Registered and Licensed Vendors for Job Contract at International Centre for Theoretical Sciences, Survey No. 151, Shivakote, Hessarghatta, Bangalore - 560089 (India).**

The Technical and Price Bids shall be submitted simultaneously in two cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price. Technical evaluation will be carried out and those vendors who qualify in the technical evaluation will be eligible for Price Bid opening. Thereafter Financial proposal shall be evaluated. The Commercially Lowest Bidder shall be the first preferred Vendor for the Award of Order

**Important Instruction:** The bids shall be enclosed in an envelope and sealed duly marked "Enquiry for Supply, Installation and Commissioning of CCTV cameras at ICTS Campus," Ref No. ICTS/TIFR/RFQ/68/2018-19; and addressed to "Administrative Officer" at the address given below. The bids are liable to be rejected if the sealed envelope is not addressed to "Administrative Officer" with Tender Ref No. and Item Description. Offers delivered in person shall be deposited in the Tender Box kept in the Office. If the bids are sent through courier or mail, it should reach by submission date and time and ICTS will not be responsible for any delay.

The tenders should be submitted in two sealed covers. This tender will be evaluated under 2 cover bid system as described above.

I. The First sealed cover - **COVER I** should be superscribed "Technical Bid" and should contain:

1. Pages 1 to 3 of this enquiry duly sealed and signed.
2. Technical Specifications of the product quoted for
3. **MAF (Manufacturer's Authorization Form) Certificate**

II. The Second sealed cover - **COVER II** superscribed 'Price Bid' should contain the Financial bid.



Ref No: ICTS/TIFR/RFQ/68/2018-19

Date: 20/12/2018

**Tender Criteria:**

1. The bidder should submit the **MAF (Manufacturer's Authorization Form) Certificate along with the quotation**. Bids without MAF Certificate will be disqualified.
2. Financial bids, if enclosed with the technical bids in Cover 1 will lead to automatic disqualification of the bid.
3. **All warranty and support must be serviced directly by the OEM**. ICTS requires that there be a SPOC from OEM who is responsible for all issues between ICTS and the OEM.
4. The bidder should have at least two installations of the proposed CCTV cameras and proof of the same should be enclosed with the technical bid.
5. The bidder should be able to configure the cameras with ICTS provided Centralised CCTV surveillance software.

**Terms & Conditions:**

The center being public funded research institution is entitled for GST @ 5% vide notification No. 47/2017-Integrated Tax (Rate) and No.45/2017-Central Tax dated 14-11-2017. Necessary Certificate will be provided along with the order.

The bids/ quotation addressed to “**International Centre for Theoretical Sciences – TIFR**”. You are requested to superscribe our enquiry number and due date on the envelope.

**All duties, taxes, surcharge and cess as currently applicable must be stated in your quotations, separately. Otherwise your quote is liable to be rejected.**

- 1) **DUE DATE FOR SUBMISSION OF QUOTATION AGAINST THIS ENQUIRY IS 10/01/2019 till 15.00 Hours.**
- 2) **QUOTATIONS RECEIVED AFTER THE DUE DATE SHALL BE REJECTED.**
- 3) Vendors can quote in USD also. OEM should provide Warranty, Support & Service locally.
- 4) The Validity of your quotation should be for **60 days from the date**.
- 5) **Your quotation should include 3-year warranty. 4th and 5th year additional warranty is optional but mandatory to quote.**
- 6) Delivery to be made to ICTS-TIFR (at vendor's own arrangement). Transit Insurance should be done up to International Centre for Theoretical Sciences-TIFR, Survey No. 151, Shivakote Village, Hesaraghatta Hobli, Bangalore North – 560089.
- 1) TDS on GST will be deducted at the prescribed rates as per notifications 50/2018 and 51/2018 – Central Tax, dated: 13 Sep 2018.
- 7) Delivery Period: 4 weeks from the date of acceptance of the purchase order and Installation within 2 weeks from delivery.
- 8) Liquidated damage: In case the item is not supplied within the agreed delivery schedule and after a grace period of 07 days, then liquidated damages will be imposed automatically and will be deducted from the



Ref No: ICTS/TIFR/RFQ/68/2018-19

Date: 20/12/2018

bill of the vendor at the rate of 0.5% per week, subject to a maximum of 10% of the order value.

- 9) **Payment:** Within 15 days after delivery, acceptance & satisfactory installation.
- 10) Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees. The decision of the arbitrator shall be final and binding on the parties. The venue for arbitration shall be Bangalore. The provisions of the Arbitration and Conciliation Act, 1996 as amended from time to time shall apply. The Courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties.

**For and on behalf of International Centre for Theoretical Sciences-TIFR**

  
**Authorized Signatory**

**Administrative Officer - 'C'**  
**International Centre for Theoretical Sciences**  
**Tata Institute of Fundamental Research**  
Survey No. 151, Shivakote,  
Hesaraghatta Hobli, Bangalore - 560 089.


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**FINANCIAL BID**
**Please let us have your lowest Quote for the following:**

Sl. No	Item Description	HSN/SAC Code	Qty	Rate per unit Rs.	Amount Rs.
1.	Supply, Installation and Commissioning of 2MP DOME fixed camera -1/2.7", progressive scan CMOS, 3D DNR (Digital Noise Reduction), 1920x1080: Max @30fps, Up to 30M IR range, 2.8mm Fixed Lens, PoE (Power Over Ethernet), H265+, H.265, H.264, IP66, IK10, Triple Stream, Digital WDR (Wide Dynamic Range), ONVIF profile S support  *Detailed information included in the Annexure - 1		40 No.		
2.	Supply, Installation and Commissioning of 2MP BULLET fixed camera: 1/2.8" progressive scan CMOS, 3D DNR(Digital Noise Reduction), 1920 × 1080@60fps, Up to 50M IR range, 4 mm Fixed Lens, PoE (Power Over Ethernet), 265+, H.265, H.264, MJPEG, support, 120dB True WDR (Wide Dynamic Range), IP67, IK 10, Triple Streams, ONVIF profile S support.  *Detailed information included in the Annexure - 2		1 No.		
3.	Supply, Installation and Commissioning of 2MP Starlight IP H.264 Bullet Camera with 2.7 to 13.5mm Motorised Lens, POE, SD Card slot, WDR, Smart Analytics, 50M IP Support, Triple Streams, ONVIF profile S support.  *Detailed information included in the Annexure - 3		10 No.		
4.	Supply, Installation and Commissioning of 2MP Starlight IR PTZ Dome Camera, 1/2.8" CMOS, ICR, 1920x1080:60fps, Ultra 265/H.264/MJPEG, Triple streams, AC24V/DC24V, Micro SD card slot, Alarm in/out 2/1, Audio, BNC output, -40-70?, IP66, 33x optical zoom(4.5 ~ 148.5mm), IR range: up to 200m, Ultra low-light(Starlight), 120dB WDR, HLC, IP66,  *Detailed information included in the Annexure - 4		7 No.		
5.	Wall mount / POLE Bracket for PTZ camera		7 No.		
6.	Supply, Installation and Commissioning of 4 MP FISH EYE: 1/3" CMOS, ICR, Ultra 265, Single		2 No.		



Ref No: ICTS/TIFR/RFQ/68/2018-19

Date: 20/12/2018

	stream (180° panoramic), DC 12V   PoE, 120dB WDR, Micro SD card slot, IP66   IK10, 1.6mm fixed lens, IR range: 10m, ONVIF profile S			
	*Detailed information included in the Annexure - 5			
7.	Supply, Installation and Commissioning of GigaSPEED XL® 3071 ETL Verified Category 6 U/UTP Cable, low smoke zero halogen, yellow jacket, 4 pair count, (Yellow colour, SYSTIMAX Poryfolio)		3000 Mtr.	
8.	Supply, Installation and Commissioning of 1" PVC HMS CONDUIT/industrial-flexible with all accessories		1000 Mtr.	
9.	Supply, Installation and Commissioning of 1" HDPE Pipe With Accessoires		500 Mtr.	
10.	Supply, Installation and Commissioning of 1" HDPE Bend   Collar		20 No.	
11.	Supply, Installation and Commissioning of 3" HDPE Pipe T- Junction		20 No.	
	Sub Total			
	Add: GST			
	Total Amount in Rupees			

- Quantities mentioned for the line items 7-11 are tentative quantities.

Signature, Name, Address and Seal of the proprietor / Managing Partner etc.

Name:

Seal of the Company:

Designation:

Signature:

Date:

For and on behalf of International Centre for Theoretical Sciences-TIFR

Authorized Signatory

Administrative Officer - 'C'  
International Centre for Theoretical Sciences  
Tata Institute of Fundamental Research  
Survey No. 151, Shivakote,  
Hessaraghatta Hobli, Bangalore - 560 089.


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**Annexure - 1**

Fixed IR IP Compact Dome Camera Line Item : 1 in Ref No: ICTS/TIFR/RFQ/68/2018-19			
Sl.No	Features	Description	Compliance (Yes/No)
1	Type	Network / IP	
2	Image Sensor	1/2.7" CCD/CMOS progressive scan	
3	Lens	Fixed, f= 2.8 mm	
4	Minimum Illumination	Color 0.01 lux at F1.8, B/W 0 lux with IR ON	
5	Field of View	Horizontal Range between 105.7 ° Vertical between 60.1°	
6	Shutter time	Auto/Manual, 1/6 s to 1/100000 s	
7	IR illumination	Preferred to have intelligent IR LEDs that automatically adjust intensity at angle of illumination. Range to be min 30M	
8	Frame Rate	25 fps in all resolutions	
9	Onvif	Profile S	
10	Signal to Noise Ratio	>52dB	
11	Video compression	H.265, H.264 and Motion JPEG	
12	Image Resolution & FPS	Main Stream:2MP (1920×1080): Max. 25 fps; Sub Stream: 2MP (1280×720): Max. 25 fps; Third Stream:D1 (720×576): Max.25 fps	
13	Video Streaming	Triple, individually configurable streams in H.265, H.264 and Motion JPEG.	
14	Digital Noise Reduction	2D/3D DNR	
15	ROI	Up to 4 areas	
16	OSD	Up to 4 OSDs	
17	Image settings	All standard image settings like Compression, Color, Brightness, Sharpness, white balance, Exposure control, BLC, HLC, AWB, Wide Dynamic Range, Text and image overlay, Rotation, 3D DNR, Privacy settings, ROI setting	
18	Supported protocols	IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, RTCP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP	
19	Intelligent Video	Motion detection, Tampering Alarm	
20	Event actions	File upload FTP, Network share and email Notification, Pre- and post-alarm video buffering	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**

21	General Function	Watermark, IP Address Filtering, Access Policy, ARP Protection, RTSP Authentication, User Authentication	
22	Connectors	RJ45 for 10BASE-T/100BASE-TX PoE	
23	Power	Power over Ethernet Plus (PoE) IEEE 802.3. Power Consumption Max.5W	
24	Casing	Mandatory to have IP66 rated Water tight, dust tight casing. And IK10 vandal resistant	
25	Operating conditions	-30 °C to 60 °C; Humidity 10-95% RH (Non-condensing)	
26	Software Features	Should be able to monitor and manage the uptime status of cameras and associated network accessories remotely. Should have options for managing SLA based on essential uptime status reports, to ensure maximum availability. The option should have following features <ol style="list-style-type: none"> <li>1. To monitor the uptime status of the cameras from locally and remotely.</li> <li>2. To monitor Down-UP-reboot-not reachable alert of IP Camera/ Workstation/ Router/ Switch/ NVR</li> <li>3. Multilevel escalation of alerts</li> <li>4. Metrics with option to specify threshold</li> <li>5. Multiple preconfigured and customizable dash board view.</li> <li>6. Tree structure design with multiple folder drill down option.</li> <li>7. User configurable folder name to specify Name, location etc.,</li> <li>8. Send alert via E-mail / SMS</li> </ol>	
27	Certification	UL, CE, FCC, ROHS	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**Annexure - 2**

<b>Camera for ANPR and RLVD</b> <b>Line Item : 2 in Ref No: ICTS/TIFR/RFQ/68/2018-19</b>			
Sl.No	Parameter	Minimum Specification	Compliance (Yes/No)
1	Image sensor and Effective Pixels (Resolution)	1/ 2.8" or better, CMOS Progressive Scan & Minimum 2 MP or higher	
2	Illumination	Starlight Illumination	
3	Electronic Shutter	1 to 1 / 1,00,000 s or better	
4	Focus	Automatic	
5	Automatic Gain Control	Automatic / Manual	
6	Lens	4.0mm	
7	Frame Rate	60 FPS at 1080p Resolution	
8	Codec	H.265, H.264, MJPEG or better	
9	Minimum Illumination	0.001 Lux@30 (IRE)f1.6 (Colour) & 0 Lux @ 30 (IRE) f1.6(B/w)	
10	backlight Compensation	Required, Camera should adjust BLC feature automatically depending on the light condition	
<b>Video</b>			
11	Day and Night functionality	Automatic, Color, Mono	
12	IR illuminator	Internal Illuminator with visibility should be at least 50 Meter	
13	Video Resolution	(1920x1080) 1080p, (1280x960) SXGA, (1280x720) 720p, (720x576) D1	
14	WDR	Yes $\geq$ 120dB	
15	Video Streams	Triple Stream, Individually configurable video streams (H.265, H.264, MJPEG)	
16	Intelligent Video	Motion detection, Intrusion Detection, Crossing Line Detection, Object Left, Missing Object, Audio Detection, Scene change, Face detection, People counting	
<b>Network &amp; Interface</b>			
17	Interface	RJ-45 for 10/100 base-T Ethernet	
18	Network Protocols support	IPv4, IPv6, HTTP, HTTPS, TCP, RTSP/RTCP/RTP, ICMP, UDP, IGMP, DNS, DHCP, NTP, SNMP, PPPoE, 802.1X, DDNS, SMTP, ARP	
19	Network Storage	ANR (Automatic Network Replenishment)	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**

20	Alarm Event	Events / alerts send via FTP, SMTP, HTTP, Pre -Post alarm video buffering.	
21	Compliance	ONVIF profile S compliant	
22	Security	Password Protection, HTTPS encryption, IEEE 802.1X	
23	On board Storage	256GB or better	
<b>General Camera Features</b>			
24	Operational Temperature	-20°C to 60 °C	
25	Casing	IP67 or better rated housing and Vandal proof rating IK10 Impact resistant	
26	Power	PoE IEEE 802.3af class0, DC12V	
27	Power Consumption	Max. 7.5W	
28	Software Features	Should be able to monitor and manage the uptime status of cameras and associated network accessories remotely. Should have options for managing SLA based essential uptime status reports, to ensure maximum availability. The option should have following features 1. To monitor the uptime status of the cameras from locally and remotely. 2. To monitor Down-UP-reboot-not reachable alert of IP Camera/ Workstation/ Router/ Switch/ NVR 3. Multilevel escalation of alerts 4. Metrics with option to specify threshold 5. Multiple preconfigured and customizable dash board view. 6. Tree structure design with multiple folder drill down option. 7. User configurable folder name to specify Name, location etc., 8. Send alert via E-mail / SMS	
29	Certifications	CE, FCC, UL, ROHS	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**Annexure - 3**

Fixed Surveillance Cameras (Starlight) Line Item : 3 in Ref No: ICTS/TIFR/RFQ/68/2018-19			
Sl.No	Parameter	Minimum Specification	Compliance (Yes/No)
1	Image sensor and Effective Pixels (Resolution)	1/ 2.8" or better, CMOS Progressive Scan & Minimum 2 MP or higher	
2	Illumination	Starlight Illumination	
3	Electronic Shutter	1 to 1 / 1,00,000 s or better	
4	Focus	Automatic / Manual	
5	Automatic Gain Control	Automatic / Manual	
6	Multi Focal	2.7 to 13.5mm Auto focus lens or better	
7	Frame Rate	2MP(1920 x 1080): Max.30fps	
8	Codec	H.265, H.264, MJPEG or better	
9	Minimum Illumination	0.0005 Lux @f1.2 AGC ON (Colour) & 0 Lux with IR ON	
10	Backlight Compensation	Required, Camera should adjust BLC feature automatically depending on the light condition	
11	ROI	Up to 8 areas	
	Video		
12	Day and Night functionality	Automatic, Color, Mono	
13	IR illuminator	Internal Illuminator with visibility should be at least 50meter	
14	Video Resolution	Main Stream:2MP (1920×1080):Max. 30 fps; Sub Stream:2MP (1920×1080):Max. 30fps; Third Stream: D1(720×576):Max. 30fps	
15	WDR	Yes ≥120dB	
16	Video Streams	Triple Stream, Individually configurable video streams (H.265, H.264, MJPEG)	
	Intelligent Video	Motion detection, Intrusion Detection, Crossing Line Detection, Object Left, Missing Object, Audio Detection, Scene change, Face detection, People counting, Defocus	
17	Network & Interface		
18	Interface	RJ-45 for 10/100 base-T Ethernet	
19	Network Protocols support	IPv4, IPv6, HTTP, HTTPS, TCP, RTSP,RTCP,RTP, ICMP, UDP, IGMP, DNS, DHCP, NTP, SNMP, PPPoE, 802.1X, DDNS, SMTP, ARP, UPnP,	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**

		FTP	
20	Network Storage	ANR (Automatic Network Replenishment)	
21	Alarm Event	Events / alerts send via FTP, SMTP, HTTP, Pre -Post alarm video buffering.	
22	Compatible Integration	ONVIF profile S, API	
23	General Security	Watermark, IP Address Filtering, Tampering Alarm, Access Policy, ARP Protection, RTSP Authentication, User Authentication	
24	Alarm Interface	1 Ch Input / 1 Ch Output	
25	Audio Interface	1 Ch Input / 1 Ch Output	
26	Audio Codec	G.711, Two-way audio	
27	On board Storage	256GB or Better	
	<b>General Camera Features</b>		
28	Operational Temperature	-30°C to 60 °C	
29	Casing	IP67 or better rated housing with bracket, IK10 impact resistant	
30	Power	PoE IEEE 802.3af class0, DC12V	
31	Power Consumption	Max. 10 W	
32	Software Features	<p>Should be able to monitor and manage the uptime status of cameras and associated network accessories remotely. Should have options for managing SLA based on essential uptime status reports, to ensure maximum availability. The option should have following features</p> <ol style="list-style-type: none"> <li>1. To monitor the uptime status of the cameras from locally and remotely.</li> <li>2. To monitor Down-UP-reboot-not reachable alert of IP Camera/ Workstation/ Router/ Switch/ NVR</li> <li>3. Multilevel escalation of alerts</li> <li>4. Metrics with option to specify threshold</li> <li>5. Multiple preconfigured and customizable dash board view.</li> <li>6. Tree structure design with multiple folder drill down option.</li> <li>7. User configurable folder name to specify Name, location etc.,</li> <li>8. Send alert via E-mail / SMS</li> </ol>	
33	Certifications	CE, FCC, UL, ROHS	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**Annexure - 4**

Starlight PTZ Surveillance Camera Line Item : 4 in Ref No: ICTS/TIFR/RFQ/68/2018-19			
Sl.No	Parameter	Minimum Specification	Compliance (Yes/No)
1	Sensor	1/2.8" CMOS & Minimum 2 MP	
2	Min. Illumination	Starlight Illumination: Color: 0.002 lux; B/w: lux 0.01 lux and 0 lux with IR ON	
3	Scanning System	Progressive	
4	S / N Ratio	>52dB	
5	IR Distance	Inbuilt with adequate coverage in sync with PTZ field of view. IR visibility should be minimum 200 meter.	
6	IR Intensity	Automatically Adjust	
7	IR on/Off Control	Auto	
8	WDR	120dB or better	
Lens			
9	Optical Zoom	33X or better	
10	Focal Length	4.5 to 148.5 mm	
11	Focus Control	Auto/Manual	
Pan Tilt Zoom			
12	Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°, auto flip 180°	
13	Manual Control Speed	Pan: 0.1° ~240° /s; Tilt: 0.1° ~160° /s	
14	Preset Speed	Pan: 300° /s; Tilt: 240° /s	
15	Preset	Minimum 256 Preset Points	
Video			
16	Compression	H.265, H.264, MJPEG	
17	Streaming Capability	Minimum 3 Streams	
18	Resolution	1080 P of Better	
19	Frame Rate	1080P (1 ~ 25/30/60fps)	
20	Day and Night	Automatic, Color, Mono	
21	Intelligent Video	Motion detection, Intrusion Detection, Crossing Line Detection, Object Left, Missing Object, Audio Detection, Scene change, Face detection, People counting	
22	Noise Reduction	Ultra DNR (2D/3D)	

**International Centre for Theoretical Sciences – TIFR**

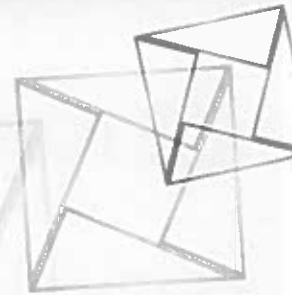
Survey No. 151, Shivakote Village

Hesarghatta Hobli

Bangalore (North) – 560 089

 Ph: 080 4653 6027 Email: [purchase@icts.res.in](mailto:purchase@icts.res.in)

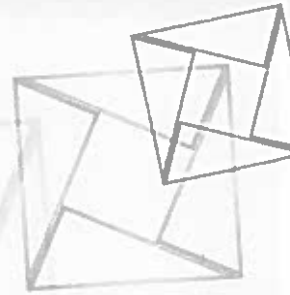
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**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**

23	Motion Detection	Required	
24	Region of Interest	Required	
25	Digital Zoom	16X or better	
	Audio		
26	Audio Compression	G.711	
27	Audio Input/ Output	1 Input/ 1 Output	
28	Two Way Audio	Required	
	Network		
29	Ethernet	RJ-45 (10/100Base-T)	
30	Protocols	IPv4, IPv6, HTTP, HTTPS, 802.1X, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, ARP	
31	Interoperability	ONVIF Profile S or higher	
32	Alarm	2 input / 1output	
33	On board storage	256GB or Better	
34	Power	Hi-PoE or AC 24V or DC12V	
	General		
35	Working Temperature /Humidity	-30°C to 50 °C, 90% RH non-condensing within enclosure	
36	IP Rating	IP 66 or better rated Housing	
37	Mounting Accessories	For pole and surface mount with Brackets	
38	Software Features	Should be able to monitor and manage the uptime status of cameras and associated network accessories remotely. Should have options for managing SLA based on essential uptime status reports, to ensure maximum availability. The option should have following features <ol style="list-style-type: none"> <li>1. To monitor the uptime status of the cameras from locally and remotely.</li> <li>2. To monitor Down-UP-reboot-not reachable alert of IP Camera/ Workstation/ Router/ Switch/ NVR</li> <li>3. Multilevel escalation of alerts</li> <li>4. Metrics with option to specify threshold</li> <li>5. Multiple preconfigured and customizable dash board view.</li> <li>6. Tree structure design with multiple folder drill down option.</li> <li>7. User configurable folder name to specify Name, location etc.,</li> <li>8. Send alert via E-mail / SMS</li> </ol>	
39	Certifications	CE, FCC, UL, ROHS	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**
**Annexure - 5**

4MP 360° Panoramic Camera Line Item : 6 in Ref No: ICTS/TIFR/RFQ/68/2018-19			
S/N	Parameter	Minimum Specification	Compliance (Yes/No)
1	Image sensor and Effective Pixels (Resolution)	1/ 3" or better, CMOS Progressive Scan & Minimum 4 MP or higher	
2	Electronic Shutter	Auto/Manual, shutter time: 1s ~1/100000 s or better	
3	Focus	Automatic	
4	Automatic Gain Control	Automatic / Manual	
5	Focal	1.6mm @F1.6	
6	Frame Rate	Main Stream : (2560×1440) : Max.25fps; Sub Stream: (1920×1080) : Max.25fps; Third Stream: D1(720 x 576): Max.25 fps	
7	ROI	Up to 8 areas	
8	Codec	H.265, H.264, MJPEG or better	
9	Minimum Illumination	Colour: 0.01 Lux (F1.6, AGC ON) 0Lux with IR	
10	backlight Compensation	Required, Camera should adjust BLC feature automatically depending on the light condition	
<b>Video</b>			
11	Day and Night functionality	Automatic, Color, Mono	
12	IR illuminator	Internal Illuminator with visibility should be at least 10Meter	
13	Defog	Digital ON/OFF	
14	WDR	Yes $\geq$ 120dB	
15	Video Streams	Triple Stream, Individually configurable video streams (H.265, H.264, MJPEG)	
16	Intelligent Video	Motion detection	
17	Display Mode	Original Image, Fisheye+4PTZ, Panoramic Preview Mode: Original Image, 360°Panoramic+1PTZ, 180°Panoramic, Fisheye+3PTZ, Fisheye+4PTZ, 360°Panoramic+6PTZ, Fisheye+8PTZ	
<b>Network &amp; Interface</b>			
18	Interface	RJ-45 for 10/100 base-T Ethernet	
19	Network Protocols support	IPv4, IPv6, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, RTCP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP, 802.1x,	


**Ref No: ICTS/TIFR/RFQ/68/2018-19**
**Date: 20/12/2018**

		SNMP	
20	Network Storage	ANR (Automatic Network Replenishment)	
21	Alarm Event	Events / alerts send via FTP, SMTP, HTTP, Pre -Post alarm video buffering.	
22	Compliance	ONVIF profile S compliant	
23	Security	Password Protection, HTTPS encryption, IEEE 802.1X	
24	On board Storage	256GB or Better	
	<b>General Camera Features</b>		
25	Operational Temperature °C	-30°C to 60 °C	
26	Casing	IP66 or better rated housing and Vandal proof rating IK10 Impact resistant	
27	Power	PoE IEEE 802.3af class0, DC12V	
28	Power Consumption	Max. 11 W	
29	Mount Type	Wall, Table and Ceiling	
30	Software Features	Should be able to monitor and manage the uptime status of cameras and associated network accessories remotely. Should have options for managing SLA based on essential uptime status reports, to ensure maximum availability. The option should have following features <ol style="list-style-type: none"> <li>1. To monitor the uptime status of the cameras from locally and remotely.</li> <li>2. To monitor Down-UP-reboot-not reachable alert of IP Camera/ Workstation/ Router/ Switch/ NVR</li> <li>3. Multilevel escalation of alerts</li> <li>4. Metrics with option to specify threshold</li> <li>5. Multiple preconfigured and customizable dash board view.</li> <li>6. Tree structure design with multiple folder drill down option.</li> <li>7. User configurable folder name to specify Name, location etc.,</li> <li>8. Send alert via E-mail / SMS</li> </ol>	
31	Certifications	CE, FCC, UL, ROHS	

