



**INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY, DELHI (IIIT-DELHI)**  
Okhla Industrial Estate, Phase III New Delhi 110020  
(Tel No 011-26907400, Website: [www.iiitd.ac.in](http://www.iiitd.ac.in))

**NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING OF CCTV CAMERAS AND SURVEILLANCE SYSTEMS**

The Indraprastha Institute of Information Technology Delhi was created as a State University by an Act of Government of NCT of Delhi.

IIIT-Delhi invites sealed Bid from reputed agencies / companies in two bid system (Technical Bid and Financial Bid separately) Tender for **Supply, Installation, Testing and Commissioning of CCTV cameras and surveillance systems** as per details below:

All amendments/information with respect to this Tender will be unloaded on the Website <https://www.iiitd.ac.in/tenders> and All Tenderers are, therefore, advised to visit the website regularly for updates.

**Bid Schedule**

Tender No	05/2021
Date of Start and downloading the tender	04.03.2021
Last date and time for submission of tender	<b>12<sup>th</sup> Mar 2021</b> at 1500 Hrs. (tender deposit in the Tender Box kept in 2 <sup>nd</sup> Floor of Old Academic Block of the Institute)
Date and time of bid opening of Technical Bids	<b>12<sup>th</sup> Mar 2021</b> at 1530 Hrs
Date and Time of the opening of Financial Bids	Will be notified to the technically qualified tenderers
Address for communication & submission of tender documents and opening of technical bid	Registrar, IIIT-DELHI, Okhla Industrial Estate, Phase III New Delhi 110020
Earnest Money Deposit:	Exempted. Bid Security Declaration to be submitted as per <a href="#">Annexure-A</a>
Contact No & Email ID	01126907563/65 & admin-project@iiitd.ac.in

**Note: This tender document contains 23 pages (total no. of pages including Annexures) and tenderers are requested to sign on all the pages.**

The Vendor will submit bids in two separate sealed envelopes i.e. one Technical Bid and second Financial Bid as per format. Each envelope must be suitable marked to indicate the type of bid. These two envelopes should be sealed in one big envelope marked as “Tender for Supply, Installation, Testing and Commissioning of CCTV cameras and surveillance systems at IIITD Campus Okhla Phase-III” New Delhi-110020.

The technical bid will be opened first in the presence of the Tender Committee Members and bidders. Financial bids of only technically qualified bidder shall be opened in the presence of the Tender Committee Members and bidders. The bidders, if they wish, may remain present.

1. The works shall be carried out as per the relevant CPWD / BIS Standards and Terms and conditions, Specifications, BOQ and areas/locations as directed complete.
2. **Time Allowed:** 20 days from issue of work order.
3. Schedule of quantity: As per enclosed BOQ. To be filled in neat handwriting/computer entries.
4. Clause 12 of GCC CPWD is applicable for EI/SI.

5. Contractor must visit site before quoting and fully satisfy himself of the site conditions.
6. Contractor must possess valid GST, PAN, and TIN no.
7. No T&P shall be issued to the Contractor .The contractor shall be provided with electricity and water at one point ,He shall make his own arrangements for further distribution of electricity , water supply and all other labour, tools, plant and equipment etc as required for the works complete. Any damage done to existing walls /ceiling /floors /electrical /fire alarm/ fighting/plumbing equipment /building during execution shall be on the part of the Contractor.
8. The priced bill of quantities, all duly signed by the authorized signatory of the firms.
9. **Eligibility Criteria:**
  - a) The tender document can be downloaded from the Institute’s web-site. Those wishing to get the copy of the document from the Institute may please deposit nonrefundable Tender Document Fee of **Rs.1, 180/-** (Rupees One Thousand One Hundred Eighty only) in the form of Demand draft drawn in favour of **IIIT-Delhi Collections**”, payable at New Delhi .
  - b) The agencies must have satisfactory executed CCTV works in Govt Deptts/PSU/Reputed Pvt sector /MNCs a three works each of value of Rs 2 Lac or two works each of value 3 Lac or one work of value 4 Lac during last 5 years to submit the experience certificates for the works and registration certificates with Govt. Depts. if any. The applications not supported with requisite experience certificates shall not be entertained. [Annexure - B](#)
  - c) The firm (vendor) must have a turnover of average of **Rs. 50 lakhs** in the last three financial years. The turnover should be in the name of applicant organization only and not that of group/ sister organizations. Attach Certificate from Chartered Accountant in this regard. **as per [Annexure - C](#)**
  - d) The Vendor should have authorized dealership of CCTV System. Proof from manufacturers of the equipment should be submitted. (**MAF mandatory**)
  - e) The vendor also must have an established service base in (Delhi and NCR) local tech support office in Delhi NCR ((**attach proof of office**)).
  - f) Proof of registration with GST, PAN, and TIN no.is essential and copies of the proof should be submitted. (**attach proof**)
  - g) The vendor must have knowledge and experience of implementation of electronic security systems including access control, surveillance and required software for monitoring. (**attach proof**)
  - h) Capability of vendor to complete this task within 20 days.
  - i) The company should not be black listed by any PSU banks/Govt. organizations. Self declaration should be submitted by the authorized official of the company. ([Annexure – D](#))
10. Payment shall be made as per actual quantities of executed works against running advance/Final bill.
11. Security Deposit / Retention money shall be **Three percent (3%)** of the value of executed works and will be deducted from each and every payment made to the contractor against running account bill submitted for the work done at site.
12. Conditional offers will not be accepted. The offer shall remain valid for 30days.
13. Contractor should depute a qualified supervisor dedicated for this work, who will monitor and coordinate work from contractor’s side and interact with the IIITD Engineers, responsible for supervision of work, on regular basis.

14. Contractor will take due permission for entry of all his workers in IIITD. No unauthorized person will be allowed to work inside.
15. Rates to quoted are inclusive of all taxes, duties, cartage, loading unloading and shifting to location as called for
16. During execution of work, Engineer may make minor changes in the scope of work as per site conditions or other reasons. Contractor will have no extra claim in his rates for the same.
17. All standard protocols such as wearing masks, using sanitizer, maintaining safe distancing norms must be followed by the Contractor and his workers to prevent spread of coronavirus failing which expulsion/ penalty shall be levied on the agency.
18. The workers shall be scanned for temperature before entry as per norms and actions per policy taken.
19. All are supposed to use identified utilities of the Institute only.
20. IIIT-D reserves the right to accept or reject any tender in part or whole without assigning any reasons thereof.

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**TERMS AND CONDITIONS:**

1. The work consists of supply, Installation, testing, commissioning of Closed Circuit Television (CCTV) system in accordance with the technical specifications, terms and conditions mentioned in tender documents.
2. The specification of the equipment supplied should be equivalent or higher than the specifications mentioned in the tender document (Approved make list) and the vendor should specify the brand/model/make in their technical offer.
3. The cameras installed should cover maximum area.
4. The tender(s) received after the due date shall be summarily rejected, and not taken into consideration.
5. All product brochures, technical documentation/specifications of CCTV cameras, NVR and Hard disk should be enclosed with the quotation.
6. Conditional/Unsolicited tenders shall not be considered.
7. If required, the bidder can be called for an on-site demo to evaluate the quality of recording and video file outputs of the quoted CCTV equipment before it is approved.
8. The prices quoted in the Financial Bid should be inclusive of all taxes and includes equipments, installation charges, materials, labor, tools, appropriate cabling and necessary management for completion of the work. The vendor should quote the prices for providing complete solution. After placing the order, Department will not pay any extra amount which is not mentioned in the financial bid.
9. The TDS will be deducted as per provisions of the Income Tax Law.
10. Any loss or damage or theft will be borne by the vendor.
11. Complete specifications of the items should be given with the name of the manufacturers in the quotation / tender. Offers' vaguely described or incomplete offers are liable to be ignored.
12. Successful bidder should deposit, within five days of receipt of the work order, 3% amount of the total value of the order as performance security in the form of Bank Guarantee from Nationalized Bank/ Scheduled Bank valid till the warranty period as specified.
16. After successful installation and testing, vendor has to impart the training without any cost to the officers of the Department to operate the equipment.
17. The entire CCTV system supplied & installed should be under on-site warranty as specified against all types of defects from the date of handing over of the product to the Department. Any defects found in the product/sub-product within the warranty period shall be rectified / replaced by the Vendor free of cost. During this period of warranty, servicing at quarterly interval or earlier without any additional cost to the Department besides attending to call back services in case of break down, as prescribed by the manufacturer and as mutually agreed to, shall be carried out free- of-cost. This includes replacement of all parts and spare parts and any number of break down call.
18. Please note that Department will apply penalty as below in case of discrepancy in services under warranty period:
  - a) On receiving complaint about equipment/ services, the Vendor will promptly

respond and repair/ replace or provide required services within 24 hours, if failed, penalty shall be levied Rs. 500/- per day;

- b) If the CCTV system is down for more than three working days, then Department will forfeit the bank guarantee;
  - c) If Department observe any unsatisfactory services after sales, discipline/ conduct, delay in repair / maintenance, then Department will forfeit the bank guarantee and black list the company / firm.
19. The Vendor should submit the bill after completion of work and submission of report from the Chief Engineer, IITD, that the work was carried out satisfactorily and as per specification. Advance payment is not permissible.
  20. The successful Vendor shall sign an agreement within Five days of the receipt of order as prescribed by Department in accordance with T&C of the tender on a judicial stamp paper. All legal expenses, incidental thereto shall be borne by the Vendor.
  21. All the Tender documents should be signed by the Vender to accept all the terms & Conditions.

**Signature and Stamp of the  
Owner/Bidder with Complete**

**FORMAT FOR TECHNICAL BID**

<b>Sr. No</b>	<b>Particulars</b>	<b>Details</b>
1.	Name of the Firm with Local Postal Address	
	Full address of the Vendor	
	Telephone no.	
	Fax No.	
	Email:	
	Contract person name and Mobile no.	
2	PAN	
3	GST Number	
4	Tender Fee Rs 1180/-	DD No _____ Dated _____, Drawn on _____
5.	No. of years' experience in the field (attach proof)	
6	Earnest Money Deposit: Exempted. Bid Security Declaration to be submitted as per ( <a href="#">Annexure-A</a> )	Yes/No
7	Work experience in CCTV and surveillance System in the last five years ( <a href="#">Annexure -B</a> )	Yes/No
8	Company's Turnover for the last 3 years i.e 2019-20, 2018-19 and 2017-18) with Income Tax returns and balance sheets for last 3 years ( <a href="#">Annexure- C</a> )	Yes/No
9.	Authorized dealership (proof from the manufacturer) (Mandatory)	Yes/No
10.	Black listed by any PSU banks/Govt. organizations. ( <a href="#">Annexure- D</a> )	Yes/No
11	Declaration - ( <a href="#">Annexure- E</a> )	Yes/No
12	On-site warranty as per T&C of the tender	Yes/No

Note: Attested Photo copies of above for proof should be attached.

Place :

Date:

Signature and Stamp of the  
Owner/Bidder with Complete address & Contact No.

**“Exempted Bid Security Declaration Form”**

Date: \_\_\_\_\_ Tender No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

- a) have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid;
- or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Security Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: \_\_\_\_\_ (signature of person whose name and capacity are shown)

Name: (complete name of person signing he Bid Security Declaration)

Duly authorized to sign the bid for an on behalf of (name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ (date of signing)

Corporate Seal (where appropriate)

**Annexure-B**

**LIST OF PRESENT AND PAST CLIENTS DURING LAST FIVE YEARS.**

Please give complete details as per the following format along with the Experience Certificate issued by clients/organisations. This information provided will facilitate evaluation of Technical Bid).

Sl. No	Name of the Organisation with complete postal address mentioning Pvt.Sector/ Govt Body / PSU / Public Limited Company.	Name and Designation of the Contract Person with Telephone No. / Mobile No. / E-mail ID.	Nature of Work	Completion Work Done Amount	Completed or Not

**Signature of the Authorized Signatory  
with Seal of the Agency/ Firm**



**ANNEXURE- C**

**CERTIFICATE REGARDING TURN-OVER OF TENDERER  
DURING THE LAST THREE FINANCIAL YEARS”**

I / We, M/s \_\_\_\_\_, the TENDER FOR CCTV Works and other related jobs as mentioned in the Tender Document, hereby confirm that the average total turn-over of the firm/company and profit earned for the last three financial years i.e. 2017-18, 2018-19 & 2019-20. The financial year-wise break-up is given below:-

<b>S.NO.</b>	<b>FINANCIAL YEAR</b>	<b>ANNUAL TURN-OVER FOR THE YEAR</b>	<b>PROFIT EARNED FOR THE YEAR</b>
	<b>2017-18</b>		
	<b>2018-19</b>		
	<b>2019-20</b>		

**Signature of the Authorized Signatory  
with Seal of the Agency/ Firm**

**NON-BLACK LISTING DECLARATION**

**FORMAT OF UNDERTAKING, TO BE FURNISHED ON COMPANY LETTER HEAD WITH REGARD TO BLACKLISTING/ NON- DEBARMENT, BY ORGANISATION**

**UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT**

**To, Registrar  
IIITD Campus  
Okhla Phase-III,  
New Delhi-110020**

We hereby confirm and declare that we, M/s -----, is not blacklisted/ De-registered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services during the last 5 years.

**Signature of the Authorized Signatory  
with Seal of the Agency/ Firm**

**DECLARATION**

1. I ..... Son/Daughter/Wife of  
Shri  
..... **Proprietor/Partner/Director/Authorized  
signatory of .....**  
..... **Competent to sign this declaration and execute this tender  
document.**
2. I have carefully read and understood all the terms and conditions of the tender and  
undertake to abide to them;
3. The information / documents furnished along with the above application are true and  
authentic to the best of my knowledge and belief. I / we, am / are well aware of the fact  
that furnishing of any false information / fabricated document would lead to rejection of  
my tender at any stage besides liabilities towards prosecution under appropriate law;

**Signature of the Authorized Signatory  
with Seal of the Agency/ Firm**

Date:

### List of Approved makes

<b>S.No</b>	<b>Equipment</b>	<b>Approved Make</b>
1	Network Video Recorder	Honeywell/Bosch/Panasonic /Pelco
2	Bullet /Dome network Camera	Honeywell/Bosch/Panasonic /Pelco
3	Hard Disk	WD/Seagate/Sony
4	POE Switch	D-Link/TP Link/Net Gear
5	GI / PVC BOX	ISO Certified
6	UTP CAT- 6 LAN Cable	AMP/Polycab/Finolex/Tyco/Systemax/D-Link
7	PVC conduit	AKG/BEC/ Precision

Note: - The material of first/standard quality from the above approved makes are to be used. In case it is established that the brands specified above are not available in the market, contractor shall submit alternative proposal for the approval of the Engineer-in-charge.

**Specification : -**

<b>32 NVR Network Video Recorder</b>			
<b>Parameters</b>	<b>Specifications</b>	<b>Yes/No</b>	<b>Remarks</b>
MAIN PROCESSOR	Quad-core embedded processor		
OPERATING SYSTEM	Embedded LINUX		
VIDEO INPUTS	32 Channels IP		
AUDIO INPUT/OUTPUT TWO-WAY COMMUNICATION	1 Channel Input/1 Channel Output, RCA Supported		
DISPLAY INTERFACE RESOLUTION	2 HDMI (1 HDMI up to 3840 × 2160); 1 VGA 3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720; 1024 × 768		
RECORDING COMPRESSION	H.265/H.264/MJPEG/MPEG4		
RESOLUTION	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240)		
FRAME RATE	1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions)		
RECORD BIT RATE	320 Mbps		
BIT RATE1	16 kbps ~ 20 Mbps, per channel		
RECORDING MODE	Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop		
VIDEO DETECTION AND ALARMS			
TRIGGER EVENTS	Recording; PTZ; Tour; Alarm; Video Push; Email; FTP; Snapshot; Buzzer		
VIDEO DETECTION	Motion Detection—MD Zones: 396 (22 × 18); Video Loss; Camera Blank		
ALARM INPUT	16 Channels		
RELAY OUTPUT	6 Channels		
PLAYBACK AND BACKUP			
SYNC PLAYBACK	1/4/8/16 (maximum 4-ch @ 8 MP, 8-ch @ 4 MP, or 16-ch @ 1080p)		

	simultaneous playback)		
SEARCH MODE	Time/Date; Alarm; Motion Detection (MD); Exact Search (accurate to a second); Smart Search		
PLAYBACK FUNCTION	Play; Pause; Stop; Rewind; Fast play; Slow play; Next File; Previous File; Next Camera; Previous Camera; Full Screen; Repeat; Shuffle; Backup selection; Digital Zoom		
BACKUP MODE COMPATIBILITY	USB Device; Network; Internal SATA burner		
NETWORK			
ETHERNET	1 RJ-45 port (10/100/1000 Mbps		
POE	16 ports (IEEE802.3af/at)		
SUPPORTED PROTOCOLS <sup>2</sup>	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP		
MAXIMUM NUMBER OF USERS	Alarm Server, IP Search, P2P		
NETWORK THROUGHPUT	128 users		
NETWORK THROUGHPUT	Input 320 Mbps; Output 320		
SMART PHONE COMPATIBILITY	iPhone; iPad; Android		
INTERNAL HDD	4 SATA ports, up to 32 TB(8 TB each)		
AUXILIARY INTERFACE	1 eSATA port		
USB PORTS	3 (2 rear USB3.0; 1 front USB2.0)		
RS232	1 port (for PC communications		
SAFETY	EU: EN60950-1 North America UL listed to UL/ CSA 60950-1		
ROHS	EN50581: 2012		
<b>5MP IP WDR IR Bullet Camera</b>			
<b>Parameters</b>	<b>Specifications</b>	<b>Yes/No</b>	<b>Remarks</b>
Video Standard	NTSC/PAL		
Scanning System	Progressive		
Image Sensor	1/2.7" Progressive CMOS		
Number Of Pixels (H × V)	2560(H) x 1920(V)		
Minimum Illumination	: 0.03 lux color @ F2.0, 0 lux B/W with IR LEDs on @ F2.0		

S/N Ratio	55 dB		
Electronic Shutter Speed	1/5 ~ 1/32,000		
IR Distance	Distance up to 50m(165ft)		
IR Light Control	Smart IR (Auto/Manual)/OFF		
IR Light Number	2		
Day/Night	Auto/Day/Night/Schedule		
Backlight Compensation	WDR, HLC		
White Balance	Auto/Fixed Current/Manual		
Motion Detection	Motion/Intrusion/People detection		
Tampering Detection	Tampering Detection/Image too dark detection/Image too bright detection/Image too blurry detection		
Lens	4.0mm, Fixed, F2.0		
Angle Of View	H:78°, V:59° @5M		
Video Compression	H.265/H.264/Smart Codec/MJPEG		
Resolution	1(5MP): 2560x1920/2048x1536/ 1600x1200/1280x960/800x600/640x480;		
Frame Rate	Main Stream: 5M (1 ~ 25/30fps); *Up to 30fps @5M under H.265 only Sub Stream: 800x600 (1 ~ 25/30fps); Third Stream: VGA (1 ~ 25/30fps)		
Bit Rate Control	Constrained bit rate/Fixed quality		
Bit Rate	20K ~ 40Mbps		
Ethernet	10 Base-T/100 Base-TX Ethernet (RJ-45)		
Protocols*	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS		
Interoperability	ONVIF Profile G/S		
Maximum Users Access	10 Users		
Security	User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128/256, SSH/ Telnet closed, PCIDSS compliance		

Event	Event notification using HTTP, SMTP, NAS server and MicroSD card File upload via HTTP, SMTP, NAS server and MicroSD card		
Micro SD	Micro SD/SDHC/SDXC card slot (256GB)		
Power Supply	DC12V, PoE (IEEE 802.3af) (Class 2)		
Power Consumption	MAX 6.49W		
Dimensions	ø91.1mm x 177mm (ø3.59" x 6.97")		
Operating Temperature	Starting: -10°C ~ 60°C (14°F ~ 140°F) Working: -30°C ~ 60°C (-22°F ~ 140°F)		
Ingress Protection	IP66		
Safety	UL 62368-1, EN 62368-1		
ROHS	EN 50581		
<b>5MP IP WDR IR Rugged Mini Dome Camera</b>			
<b>Parameters</b>	<b>Specifications</b>	<b>Yes/No</b>	<b>Remarks</b>
Video Standard	NTSC/PAL		
Scanning System	Progressive		
Image Sensor	1/2.7" Progressive CMOS		
Number Of Pixels (H × V)	2560(H) x 1920(V)		
Minimum Illumination	: 0.03 lux color @ F2.0, 0 lux B/W with IR LEDs on @ F2.0		
S/N Ratio	55 dB		
Electronic Shutter Speed	1/5 ~ 1/32,000		
IR Distance	Distance up to 30m (98ft)		
IR Light Control	Smart IR (Auto/Manual)/OFF		
IR Light Number	2		
Day/Night	Auto/Day/Night/Schedule		
Backlight Compensation	WDR, HLC		
White Balance	Auto/Fixed Current/Manual		
Motion Detection	Motion/Intrusion/People detection		
Tampering Detection	Tampering Detection/Image too dark detection/Image too bright detection/		



	Image too blurry detection		
Lens	2.8mm, Fixed, F2.0		
Angle Of View	H:108°, V:60° @4M		
Video Compression	H.265/H.264/Smart Codec/MJPEG		
Resolution	1(5MP): 2560x1920/2048x1536/ 1600x1200/1280x960/800x600/640x480;		
Frame Rate	Main Stream: 5M (1 ~ 25/30fps); *Up to 30fps @5M under H.265 only Sub Stream: 800x600 (1 ~ 25/30fps); Third Stream: VGA (1 ~ 25/30fps)		
Bit Rate Control	Constrained bit rate/Fixed quality		
Bit Rate	20K ~ 40Mbps		
Ethernet	10 Base-T/100 Base-TX Ethernet (RJ-45)		
Protocols*	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS		
Interoperability	ONVIF Profile G/S		
Maximum Users Access	10 Users		
Security	User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128/256, SSH/ Telnet closed, PCIDSS compliance		
Event	Event notification using HTTP, SMTP, NAS server and MicroSD card File upload via HTTP, SMTP, NAS server and MicroSD card		
Micro SD	Micro SD/SDHC/SDXC card slot (256GB)		
Power Supply	DC12V, PoE (IEEE 802.3af) (Class 2)		
Power Consumption	MAX 6.49W		

Dimensions	Ø117.11mm x 89.51mm (Ø4.61'' x3.52'')		
Operating Temperature	Starting: -10°C ~ 60°C (14°F ~ 140°F) Working: -30°C ~ 60°C (-22°F ~ 140°F)		
Ingress Protection	IP66		
Vandal Resistance	IK10		
Safety	UL 62368-1, EN 62368-1		
ROHS	EN 50581		
<b>2MP IP TDN 1080p IR Bullet Camera</b>			
<b>Parameters</b>	<b>Specifications</b>	<b>Yes/No</b>	<b>Remarks</b>
Video Standard	NTSC/PAL		
Scanning System	Progressive		
Image Sensor	1/2.7" Progressive CMOS		
Number Of Pixels (H × V)	1920 × 1080		
Minimum Illumination	0.08 lux color @ F2.0 (Color, 1/3s, 30 IRE) 0 lux B/W with IR LEDs on @ F2.0		
S/N Ratio	45 dB		
Electronic Shutter Speed	1/3(4) – 1/100,000 s		
IR Distance	Up to 98 ft (30 m), depending on scene reflectance		
IR Light Control	Smart IR (Auto/Manual)/OFF		
IR Light Number	2		
Day/Night	Auto (ICR)/Color/BW		
Backlight Compensation	BLC/HLC/DWDR		
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/ Customized Region		
Motion Detection	Motion/Intrusion/People detection		
Tampering Detection	Tampering Detection/Image too dark detection/Image too bright detection/ Image too blurry detection		

Lens	3.6 mm, fixed, F2.0		
Angle Of View	83° (H), 53° (V)		
Video Compression	H.265/H.264/Smart Codec/MJPEG		
Resolution	1080p (1920×1080), SXGA (1280×1024), 1.3 MP (1280×960), 720p (1280×720), D1 (704×480/576), VGA (640×480), CIF (352×240/288)		
Frame Rate	2 MP at 1 – 25/30fps D1/CIF at 1 – 25/30fps		
Bit Rate Control	CBR/VBR		
Bit Rate	H.265: 12K – 6400 Kbps H.264: 32K – 10240 Kbps		
Ethernet	RJ-45 (10/100BASE-T)		
Protocols*	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS		
Interoperability	ONVIF Profile G/S		
Maximum Users Access	20 Users		
Security	User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128/256, SSH/ Telnet closed, PCIDSS compliance		
Event	Network disconnection, IP address conflict, illegal access, video tampering, motion detection		
Micro SD	Micro SD/SDHC/SDXC card slot (256GB)		
Power Supply	PoE (802.3af) Class 0, 12 VDC		
Power Consumption	5.03 W max. (IR LEDs on)		
Dimensions	6.49" × 2.79" (164.8 mm × 71.0 mm)		
Operating Temperature	–22°F to 131°F (–30°C to 55°C)		

Ingress Protection	IP66		
Safety	EU: EN 60950-1 North America UL listed to UL/CSA 60950-1		
ROHS	EN 50581		
<b>2MP TDN 1080p IR Dome Camera</b>			
<b>Parameters</b>	<b>Specifications</b>	<b>Yes/No</b>	<b>Remarks</b>
Video Standard	NTSC/PAL		
Scanning System	Progressive		
Image Sensor	1/3" 2 MP CMOS		
Number Of Pixels (H × V)	1920 × 1080		
Minimum Illumination	0.08 lux color @ F2.0 (Color, 1/3s, 30 IRE) 0 lux B/W with IR LEDs on @ F2.0		
S/N Ratio	45 dB		
Electronic Shutter Speed	1/3(4) – 1/100,000 s		
IR Distance	Up to 25 m (82 ft), depending on scene reflectance		
IR Light Control	Smart IR (Auto/Manual)/OFF		
Day/Night	Auto (ICR)/Color/BW		
Backlight Compensation	BLC/HLC/DWDR		
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/ Customized Region		
Motion Detection	Motion/Intrusion/People detection		
Tampering Detection	Tampering Detection/Image too dark detection/Image too bright detection/Image too blurry detection		
Lens	3.6 mm, fixed, F2.0		
Angle Of View	83° (H), 53° (V)		
DIGITAL ZOOM	16x		
Video Compression	H.265+/H.265/H.264+/H.264		
Resolution	1080p (1920×1080), SXGA (1280×1024), 1.3 MP (1280×960), 720p (1280×720), D1 (704×480/576), VGA (640×480), CIF (352×240/288)		

Frame Rate	2 MP at 1–25/30fps D1/CIF at 1–25/30fps		
Bit Rate Control	CBR/VBR		
Bit Rate	H.265: 12K – 6400 Kbps H.264: 32K – 10240 Kbps		
Ethernet	RJ-45 (10/100BASE-T)		
Protocols*	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS		
Interoperability	ONVIF Profile G/S		
Maximum Users Access	20 Users		
Security	User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128/256, SSH/ Telnet closed, PCIDSS compliance		
Event	Network disconnection, IP address conflict, illegal access, video tampering, motion detection		
Micro SD	Micro SD/SDHC/SDXC card slot (256GB)		
Power Supply	PoE (802.3af) Class 0, 12 VDC		
Power Consumption	4.12 W max. (IR LEDs on)		
Dimensions	93.4 mm × 79.7 mm (3.68" × 3.14"		
Operating Temperature	–30°C to 55°C (–22°F to 131°F)		
Ingress Protection	IP66		
Safety	EU: EN 60950-1 North America UL listed to UL/CSA 60950-1		
ROHS	EN 50581		

### BILL OF QUANTITIES

S. NO.	PARTICULARS	Make & Model to be mentioned	Qty	Rate	Total
1	Supply Installation, Testing & Commissioning of 32 Channel <u>NVR</u> – As per above specifications	Honeywell/Bosch//Panasonic/Pelco	1		
2	Supply Installation, Testing & Commissioning of <u>5 MP Bullet IR</u> Camera Whether prof. - As per above specifications	Honeywell/Bosch//Panasonic/Pelco	4		
3	Supply Installation, Testing & Commissioning of <u>5 MP Dome IR</u> Camera - As per above specifications	Honeywell/Bosch//Panasonic/Pelco	3		
4	Supply Installation, Testing & Commissioning of <u>2 MP Dome IR</u> Camera- As per above specifications	Honeywell/Bosch//Panasonic/Pelco	15		
5	Supply Installation, Testing & Commissioning of <u>2 MP Bullet IR</u> camera Whether prof.- As per above specifications	Honeywell/Bosch//Panasonic/Pelco	10		
6	Supply Installation, Testing & Commissioning of HDD 8TB Surveillance. designed to ensure seamless video footage capture in 24x7 surveillance workloads,- As per above specifications	WD/Seagate/Sony	3		
7	Supply Installation, Testing & Commissioning of 8 Port 10/100/1000 GIGABIT web managed rackmount POE switch with 2SFP slot with all mounting accessories etc. Complete	D-Link/TP Link/Net Gear	7		

8	Supplying and fixing following size/ modules, GI /PVC box alongwith modular base & cover plate for modular switches in recess etc. as required. a) 1 or 2 Module (75 mmX75 mm)	ISI Certified	32		
9	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable with RJ45 termination on either side in the existing surface/ recessed Steel/ PVC conduit/PVC channel complete with connection as required.-	AMP/Polycab/Finolex/Tyco/Systemax/D-Link	1000		
10	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.- <b>20mm</b>	AKG/BEC/ Precision	800		
	<b>Total</b>				
	<b>GST @ 18%</b>				
	<b>Total Amount with GST</b>				

In words (Rs)

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**Note:**

1. Above cost shall include Supply, installation, testing and commissioning of CCTV cameras and surveillance system.
2. All product brochures, technical documentation/specifications should be enclosed with the quotation and also specify the warranty period.
3. All the products should be supplied with complete accessories required.
4. All the above products should be of reputed brand, **ISI/CE/ISO/BIS** certified and conformity with the Indian/ International Standards. FCC/UL/ROHS/CB/1P67/1K10.
5. Warranty: - There should be onsite warranty of 1 year from the date of installation.
6. Number of Cameras likely to be increased or decreased or change without assigning any reason.