

Ref. NIA/ENGG/2025-26/003

Date: 11/09/2025



Balewadi, Baner Road, NIA P.O.,
Pune 411 045 (India).

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Subject: Quotation form for Supply, Installation, testing and Commissioning of IP based CCTV Cameras along with network at NIA, Pune

Dear Sir/Madam,

NIA invites you to submit your offer on sealed cover, Supply, Installation, testing and Commissioning of IP based CCTV Cameras along with network at NIA, Pune, in complete accordance with enquiry documents/attachments:

Due Date & Time : 19.09.2025 at 03:00 pm.

Quotation Evaluation Criterion :

The quotation completed in all respects should reach NIA at the above address(Reprography office) on or before 03.00 pm of the scheduled date. Quotation received after the due date and time is liable to be rejected. NIA reserves the right to accept or reject any or all quotation received to its absolute discretion without assigning any reason whatsoever.

Thanking You,

Yours truly,

Engineering Department(NIA)

DOCUMENT REQUIRED FROM THE BIDDERS.

1. Registration certificate.
2. Authority letter from the holder of the certificate/Proprietor Certificate
3. PAN & GST Certificate
4. MAF Certificate for this specific Project.
5. Annual Turnover Certificate (Approx 6 Lakhs and above)
6. Past working experience of at least 30 Camera installations.(Attach work completion certificates)
7. Local Service Centre (office should be In Pune.)

TERMS AND CONDITIONS:

1. Prices- Rates quoted should be firm.
2. The rates should be quoted on the basis on the units specified in words as well as in figures without any cutting, in case of differences in values / rates in figure and words or any confusion it will be constituted to take the rates which are lowest.
3. Payment- Payment shall be made within 15 days of receipt of bills from the agency/firm/company after the completion of work.
4. Guarantee / Warrantee must be written in the quotation.
5. The quotation should be valid for a minimum period of 90 days from the date of enquiry letter date.
6. The acceptance of items is subject to inspection by the Engg. Dept.
7. In the case of transportation , agency/firm/company shall strictly observe the regulations as laid down by Traffic Police / Motor Vehicle act. NIA shall not be responsible / accountable for violation of these rules. Any damage to NIA property / material during transportation shall be recovered from the agency/firm/company bill.
8. Incomplete quotation will be rejected summarily.

Scope of Work

1. The scope includes supplying high-resolution IP CCTV cameras (indoor, outdoor), network video recorders (NVRs), PoE switches, structured cabling (Cat6 or higher), mounting accessories.
2. It involves conducting a site survey, installing cameras at different outdoor/indoor locations as per our Need and laying network and power cables, configuring NVRs and switches, and setting up the entire network.
3. Testing will cover camera feeds, network connectivity, recording functionality, and power backup systems.
4. Commissioning includes final system configuration, staff training, and handover of documentation such as layout diagrams, manuals, and warranty details. Post-commissioning support includes a one-year maintenance period, remote monitoring setup if required, and periodic system health checks.

Technical Specifications:

1.CCTV Camera(STQC Compliant only)		
Feature	Specification	Compliance
Image Sensor	1/2.8" 2MP PS CMOS Image Sensor (0.9071 Centimetres)	YES/NO
Effective Pixels	1920 (H) × 1080 (V)	YES/NO
Minimum Illumination	0.005 lux@F1.6 (Color, 30 IRE), 0.0005 lux@F1.6 (B/W, 30 IRE), 0 lux (IR on)	YES/NO
Angle Adjustment	Pan: 0°–360°, Tilt: 0°–90°, Rotation: 0°–360°	YES/NO
Shutter Speed	Auto/Manual 1/3 s–1/100,000 s	YES/NO
White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom	YES/NO
RAM	128 MB	YES/NO
ROM	128 MB	YES/NO
DORI Distance	Lens 3.6mm: 58.9 m (Detect), 23.6 m (Observe), 11.8 m (Recognize), 5.9 m (Identify)	YES/NO
Gain Control(AGC)	Auto/Manual	YES/NO
Lens Type	Fixed-focal	YES/NO
Max. Aperture	F1.6	YES/NO
Lens Mount	M12	YES/NO
Close Focus Distance	1.3 m	YES/NO
Lens	3.6mm fixed Lens	YES/NO
S/N Ratio	>56dB	YES/NO
Back Light Compensation	BLC/ HLC/ DWDR	YES/NO
IR Number	1 (Multi-core (IR + warm) light)	YES/NO
IR	IR Range of 30 Mtr.	YES/NO
Warm Light	Warm Light Range of 30 Mtr.	YES/NO
Angle of View	3.6 mm: H: 87°, V: 44°, D: 105°	YES/NO
Day/Night	Auto (ICR)/Colour/B/W	YES/NO
IR Control	Auto, Manual	YES/NO
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, SMD (human & Motor Vehicle), Security exception	YES/NO
Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot	YES/NO
Certificates	ISO9001, CE, FCC and RoHS, BIS	YES/NO
Power Source	12 VDC/PoE (802.3af)	YES/NO

Power Consumption	Basic: 1.4 W (12 VDC), 2.2 W (PoE); Max.: 3.3 W (12 VDC), 4.4 W (PoE) (H.265 + intelligence on + warm light intensity)	YES/NO
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)	YES/NO
Operating Humidity	≤95% (RH), non-condensing	YES/NO
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)	YES/NO
Storage Humidity	≤95%(RH), non-condensing	YES/NO
Weatherproof Standard	IP67	YES/NO
Casing	Metal + Plastic	YES/NO
Dimension	162.6 mm × 70 mm × 70 mm	YES/NO
Weight	220g	YES/NO
OSD	Camera title, Date & Time	YES/NO
Audio Compression	G.711a, G.711Mu, PCM, G.726	YES/NO
Bit Rate Control	CBR/ VBR	YES/NO
Bit Rate	H.265: 12 kbps–4096 kbps, H.264: 32 kbps–4096 kbps	YES/NO
Protocol	SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP V1/ V2/ V3, TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, ONVIF (Profile S, Profile G, Profile T), unicast, multicast	YES/NO
SDK and API	Support	YES/NO
Ethernet	RJ-45 (10/100 Base-T)	YES/NO
Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, Security exception,	YES/NO
Mirror Function	Support	YES/NO
Smart search	Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos	YES/NO
Smart IR	Support	YES/NO
Image Rotation	0°/180°	YES/NO
User/Host	6 (Total bandwidth: 24 M)	YES/NO
Browser	IE, Chrome, Firefox	YES/NO
Storage	SFTP, NAS, Mirco SD card (Max. 512GB)	YES/NO
Iris Control	Fixed	YES/NO
Power Source	12 VDC/ PoE (802.3af)	YES/NO
Power Consumption	Basic: 1.6 W (12 VDC), 2.0 W (PoE); Max.: 3.7 W (12 VDC), 4.7 W (PoE) (H.265 + intelligence on + WDR+ warm light intensity)	YES/NO

2.NVR		
Feature	Specification	compliance
Processor	Industrial-grade processor	YES/NO
IP Camera Input	16 channels	YES/NO
Operating System	Embedded LINUX	YES/NO
User Interface	Web, Local GUI	YES/NO
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map	YES/NO
AI by Recorder	SMD Plus	YES/NO
Perimeter Performance of AI by Camera	6 Ch.	YES/NO
Video Output	1 HDMI, 1 VGA Simultaneous : HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 Heterogeneous : HDMI: 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720	YES/NO
Face Attributes	Gender; age group; glasses; expressions; face mask; beard	YES/NO
SMD Plus by NVR	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	YES/NO
SMD Plus by Camera	6 Ch.	YES/NO
Face Recognition Performance of AI Camera	6 Ch.	YES/NO
Resolution	12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF; QCIF	YES/NO
Network Bandwidth	AI disabled: 160 Mbps incoming, 160 Mbps recording and 80 Mbps outgoing AI enabled: 80 Mbps incoming, 80 Mbps recording and 60 Mbps outgoing	YES/NO
Multi-Screen Preview	Main Screen: 1/4/8/9/16 Sub Screen: 1/4/8/9/16	YES/NO
Decoding Capability	AI disabled: 1-channel 12 MP@30 fps; 2-channel 8 MP@30 fps; 3-channel 5 MP@30 fps; 4- channel 4 MP@30 fps; 8-channel 1080p@30 fps AI enabled: 1-channel 12 MP@30 fps; 1- channel 8 MP@30 fps; 2-channel 5 MP@30 fps; 3-channel 4 MP@30 fps; 7-channel 1080p@30 fps	YES/NO
Record Mode	General, motion detection; intelligent; alarm	YES/NO
Video Compression	H.265; Smart H.264+; H.264	YES/NO
Encode Strategy	Smart Interstream;	YES/NO
Audio Compression	G.711a; G.711u; PCM; G726	YES/NO
Audio Input	1-channel RCA	YES/NO

Audio Output	1-channel RCA	YES/NO
Alarm Input	4 channels	YES/NO
Alarm Output	2 channels (1-channel 12 V 1 A output)	YES/NO
Smart Phone	iPhone, iPad, Android, Windows Phone	YES/NO
Disk Group	Support	YES/NO
Disk Interface	2 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature.	YES/NO
General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm	YES/NO
Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cyber-security exception	YES/NO
Trigger Events	Recording, PTZ, Tour, Alarm, Video Push, Email, FTP, Spot, Buzzer & Screen	YES/NO
Intelligent Alarm	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map	YES/NO
Alarm Linkage	Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email	YES/NO
Recording Mode	Manual, Schedule (Regular (Continuous), MD, Alarm), Stop	YES/NO
Face Detection Performance	6 ch.	YES/NO
Browser	Chrome; IE; Safari; Edge; Firefox	YES/NO
Search Mode	Time/Date, Alarm, MD & Exact search (accurate to second), Smart search	YES/NO
Multi-Channel Playback	Up to 16 Ch.	YES/NO
Playback	Play, Pause, Stop, Rewind, Fast play, Slow play, Next file, Previous file, Next camera, Previous camera, Full screen, Repeat, Shuffle, Backup selection, Digital zoom	YES/NO
Playback function	Instant playback, general playback, event playback, tag playback, smart playback	YES/NO
Backup Mode	USB device and network	YES/NO
Interface Ports	1 HDMI, 1 VGA, 2 USB2.0, 1 RJ45	YES/NO
Ethernet	1 RJ-45 port (10/100M/1000M)	YES/NO
Protocols	HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; FTP; DDNS; SNMP; Alarm Server; P2P; Auto Registration; IP Search (Supports IP camera, DVR, NVS, etc.) ONVIF 2.2(Profile T; Profile S; Profile G); CGI; SDK	YES/NO
Operating Temperature	-10 °C to +55 °C (14 °F to +131 °F)	YES/NO
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)	YES/NO
Operating Humidity	10%–93% (RH), non-condensing	YES/NO
Power Supply	12 VDC, 4 A	YES/NO
Power Consumption	Total output of NVR is <10 W (without HDD)	YES/NO
Dimensions	375.0 mm × 282.9 mm × 53.0 mm	YES/NO
Weight	1.49 kg	YES/NO

3.PoE Switch	
Features	Compliance
Uplink Ports 2, 1000Mbps; RJ45 Ports; Transmission Distance: Default: 0-100m	YES/NO
PoE Ports 8,10/100Mbps; RJ45 Ports; Max. 30W Output of Single PoE Port	YES/NO
Network Standard IEEE802.3/802.3u/IEEE 802.3ab/802.3x	YES/NO
Switch Capacity 5.6Gbps (non-blocking)	YES/NO
Packet Forwarding Rate 4.166Mpps	YES/NO
Network Ports 10	YES/NO
MAC Address List 2K	YES/NO
Transmission Distance 0-100m/100Mbps or Max. 250m/10Mbps via Cat.5e or more under Extend mode	YES/NO
Uplink Ports 2, 1000Mbps; RJ45 Ports; Transmission Distance: Default: 0-100m	YES/NO
PoE Ports 8,10/100Mbps; RJ45 Ports; Max. 30W Output of Single PoE Port	YES/NO
Network Standard IEEE802.3/802.3u/IEEE 802.3ab/802.3x	YES/NO
Switch Capacity 5.6Gbps (non-blocking)	YES/NO
Packet Forwarding Rate 4.166Mpps	YES/NO
Network Ports 10	YES/NO
MAC Address List 2K	YES/NO
Transmission Distance 0-100m/100Mbps or Max. 250m/10Mbps via Cat.5e or more under Extend mode	YES/NO
PoE Standard IEEE802.3af, IEEE802.3at	YES/NO
Packet Buffer 448K	YES/NO
PoE watchdog Support	YES/NO
Surge Protection	YES/NO
Common mode/RJ45 port: 4KV, Differential mode/RJ45 port: 2KV, Common mode/Power	YES/NO
board: 2KV, Differential mode/Power board:2KV	YES/NO
ESD Protection Air discharge: 8KV, Contact discharge: 6KV	YES/NO
VLAN Support	YES/NO
Forwarding Mode Store-and-forward	YES/NO
PWR (Power supply Indicator) Light on: Powering; Light off: No Power	YES/NO
Mode DIP	YES/NO
Green light off: Normal/Default mode; Green light on: VLAN mode; Green light flash: Extend	YES/NO
mode	YES/NO
RJ-45 ACT indicator	
Green light off: Link is disconnected, green light on: Link is connected, Green light flash: Data transmitting	YES/NO
Operating Temperature -10°C~-50°C	YES/NO
Humidity 5%-90% , non-condensing	YES/NO
Storage Temperature -40°C~70°C	YES/NO
PoE Power Budget 96W	YES/NO
Power Source Bult-in Power Supply, Input: 100-240V AC, 50/60Hz	YES/NO
Power Consumption <5W	YES/NO
Dimensions 200mm x 118mm x 44mm	YES/NO

Format for quotation

To be filled in by agency on their letterhead

S No	Description	Qty	Unit	Rate	Amount
1	Supplying, erecting, testing and commissioning of 2MP Bullet camera with dual light along with night vision and other details as per technical specification (STQC compliant cameras)	25	Each		
2	Supplying, erecting, testing and commissioning of 16 channel NVR (2 SATA) and other details as per technical specification	5	Each		
3	Supplying, erecting, testing and commissioning of 8Port PoE switches enterprise grade and other details as per technical specification sheet	7	Each		
4	Supplying, erecting, testing and commissioning of 4TB hard disk for CCTV recording and as per surveillance requirements for 30 days back up as per standard specifications	5	Each		
5	Supplying and laying cat-6 cable double layer outdoor cable along with RJ45 connectors for connecting the cameras in PVC conduits/Casing capping or any other medium etc	1000	Mt		
6	Supplying and erecting camera mounting box for the cameras as per standard specifications.	25	Each		
7	Supplying and erecting 6U Racks for the cameras NVR and PoE switches as per standard specifications.	8	Each		
	Total amount				
	GST @ 18%				
	Final Amount				

Delivery Period: Product to be delivered and installed within 3 weeks from date of PO.

Signature and seal of agency/firm/company

Date:

Address:

Mobile No: