



Phones :011-22324086

Fax :011-22322201

SHYAM LAL COLLEGE: SHAHDARA, DELHI - 110032
(UNIVERSITY OF DELHI)

Ref.....

email:- shyamlalcollegeday@yahoo.co.in

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NOTICE INVITING TENDER

Shyam Lal College (University of Delhi), G.T Road Shahdara, Delhi-110032, Invites sealed quotations for Supplying & installation of IP Camera or Analog HD Camera CCTV System in the College.

Followings are the Technical Specifications of **IP Camera** CCTV System and its equipment.

S No.	Item	Make	Qty.
1	Indoor CCTV Camera	CP-Plus, Sony	16 Nos.
2	Outdoor Bullet Camera	CP-Plus, Sony	10 Nos.
3	Hard Disk	Seagate ,WD, Sony	8 Nos.
4	CAT 6 Cable	D-Link ,Molex ,Delton ,AMP, Belden	As per requirement

1. Indoor Bullet IR Network Camera

- Sensor: - The camera should be equipped with a minimum of 1/3" CMOS sensor applying progressive scan technology to record more fluid footage and avoid distortion created by moving objects.
- Resolution: - Minimum 1080p for high definition video quality.
- Frame Rate: - The camera should capture images at a frame rate of 25/30fps@1.3MP so as to give a swift video output even in case of fast moving objects.
- Video Compression: - H.264, H.264_High Profile & MJPEG.
- Audio Compression:- G.711a/G.711u.
- Lens: - The camera should be provided with an OEM fitted 3.6mm to 8 mm Fixed Lens as per side.
- Privacy Masking: - Camera should support up to 4 areas.
- Minimum Illumination: - Color @ 0.02Lux/F2.0, 0Lux/F2.0 (IR on).
- ICR: - The camera shall incorporate a physical ICR filter for quality images both during day and night.
- IR Distance: - 30 mtr or more.
- Video Streaming: - The camera should support master and slave stream that are individually configurable. It should support Dual Streaming or Better.
- Corridor Mode: - Camera should support Corridor Format that allows cameras to maximize video surveillance in narrow vertical situations.
- Backlight Compensation: - BLC should allow adjusting the gain of the camera to improve

exposure of the subjects that are in front of a bright light source.

- Wide-Dynamic-Range: - The camera should give a WDR range of minimum 104Db.
- Network :- IPv4/IPv6, HTTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP.
- Security: - Security Password protection, HTTPS (SSL, TLS), IP filtering, IEEE 802.1X.
- Others:-Exposure Control, AGC, White Balance.
- Audio In/Out: - 1/1 so as to equip the camera with 2-way audio.
- IVA: - Motion detection, Face detection, Intrusion, Crossing line, Object removal, and Object desertion.
- Network Ethernet: - RJ-45 (10/100Base-T).
- Power Source :- The outdoor network bullet camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af to supply power to the camera over the network and DC12 V to supply local power in case of longer distance where PoE is not possible.
- Power Consumption Not to exceed <12W.
- Smart Phone: - It should support remote monitoring over iPhone, iPad, Android and Windows Phone including desktop/PC.
- Weather Proof Standard: - IP67 rated weather proofing standards.
- Open Protocol: - ONVIF ver 2 or higher.
- Certifications: - UL, FCC, CE, ISO certified.

2. Outdoor Bullet IR Network Camera

- Sensor: - The camera should be equipped with a minimum of 1/3" CMOS sensor applying progressive scan technology to record more fluid footage and avoid distortion created by moving objects.
- Resolution: - Minimum 1080p for high definition video quality.
- Frame Rate: - The camera should capture images at a frame rate of 25/30fps@1.3MP so as to give a swift video output even in case of fast moving objects.
- Video Compression: - H.264, H.264_High Profile & MJPEG.
- Lens: - The camera should be provided with an OEM fitted 3.6mm to 6mm Fixed Lens as per side.
- Privacy Masking: - Camera should support up to 4 areas.
- Minimum Illumination: - Color @ 0.02Lux/F2.0, 0Lux/F2.0 (IR on).
- ICR: - The camera shall incorporate a physical ICR filter for quality images both during day and night.
- IR Distance: - 20 Mtr or above.
- Video Streaming: - The camera should output a master and a slave stream that are individually configurable. Should support Triple Streaming.
- Corridor Mode: - Camera should support Corridor Format that allows cameras to maximize video surveillance in narrow vertical situations.
- Backlight Compensation: - BLC should allow adjusting the gain of the camera to improve exposure of the subjects that are in front of a bright light source.
- Wide-Dynamic-Range: - The camera should give a WDR range of minimum 104Db.
- Camera Tampering: - The camera shall provide real time tampering protection by

means of alerts generated at the software.

- Pre/Post Event Buffering:- The camera should support a least of 3 seconds of pre & post event buffering.
- Event Notification:- Through Relays, E-Mails or FTP.
- Network:- IPv4/IPv6, HTTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP.
- Security:- Security Password protection, HTTPS (SSL, TLS), IP filtering, IEEE 802.1X.
- IVA: - Motion detection, Face detection, Intrusion, Crossing line, Object removal, and Object desertion.
- Network Ethernet: - RJ-45 (10/100Base-T).
- Network Compatibility:- PSIA, CGI
- Power Source:- The outdoor network bullet camera shall support industry standard Power over Ethernet (PoE) IEEE 802.3af to supply power to the camera over the network and DC12 V to supply local power in case of longer distance where PoE is not possible.
- Power Consumption:- Not to exceed 6W
- Smart Phone:- It should support remote monitoring over iPhone, iPad, Android and Windows Phone including desktop/PC
- Operation Temperature/Humidity:- '-40 °C to 60 °C / Less than 95% RH
- Weather Proof Standard:- IP67 rated weather proofing standards
- Open Protocol:- ONVIF ver 2 or higher
- Certifications:- UL,FCC ,CE, ISO certified

3. 32 Channel Network Video Recorder

- Main Processor :- Dual-core embedded processor
- Operating System:- Embedded LINUX / Window
- Storage: - Inbuilt 12 terabyte.
- Hard Disk Interface: - Support 8 SATA pluggable interfaces with max 4TB capacity each.
- Serial Interface:- RS232 : Port for PC communication & keyboard
- IP Camera Input:- 32 channel input at FULL HD resolution
- Display Interface:- HDMI, VGA
- Remote Interface :- Support
- Video Compression :- H.264 Main Profile
- Main Stream :- H.264/MPEG-4/MPEG
- Video Decoding:- PAL/NTSC
- Preview Resolution:- 5MP/3MP/1080p/UXGA/720p/VGA/4CIF
- Preview :- 1,4,8,16 picture preview
- Channel status:- Recording Icon, Motion detection, Alarm icon
- Video sequencing:- Support single or multiple channel video sequence
- Dwell time for video sequence:- Selectable (5 sec to more sec)
- Display Resolution:- 1920× 1080, 1280× 1024, 1280× 720, 1024× 768
- Total Bandwidth :- Max 200Mbps incoming bandwidth
- Display Split:- '1/4/8/16/24
- Support multiple brands:- Should Support Multi-brand network cameras

- On Screen Display :- Camera title, Time, Video loss, Camera lock, Motion detection, Recording
- Recording Compression :- H.264/MJPEG
- User Interface:- GUI
- Motion Detection:- MD Zones: 396(22×18)
- Audio:- Support
- Backup Mode:- USB Device/Network/Internal SATA burner/eSATA Device
- Video Loss:- Supports
- Smart Phone: - It should support remote monitoring over iPhone, iPad, Android and Windows Phone including desktop/PC.
- Search Mode: - Time/Date, Alarm, MD & Exact search (accurate to second), Smart search.
- Virtual Alarm:- Video loss, motion detection , hard disk failure , Network disconnection, Disk No Space, No Disk.
- Alarm Output: - Buzzer, Hardware alarm output, POP up message.
- Auto restart support:- Yes
- eSATA Backup:- 1 eSATA up to 16TB
- Backup Mode:- USB Device/eSATA Device/Internal SATA burner/Network.
- Human-computer interface: - Mouse, Soft Keyboard, GUI, Remote control.
- User Management:- Two levels of user permissions.
- Hard Disk :- 8 SATA ports with 4Tb each
- External HDD :- 1 eSATA up to 16TB
- Network Ethernet:- 2 RJ-45 ports (10/100/1000Mbps)
- USB:- 1 Rear USB3.0, 2 Front USB2.0 (4-USB Port)
- RAID Supported:- Supported
- Network Function:- HTTP, TCP/IP, IPv4/IPv6, UPNP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPOE, DDNS, FTP, Alarm Server, IP Search
- Additional Interfaces:- RS232 : 1 port, For PC & Keyboard communication
RS485: 1 port, For PTZ control.
- Max. User Access: - Should support mini 120 users.
- Power Supply:- AC 100V~240V, 50/60 Hz
- Certification:- UL,FCC ,CE, ISO Certified
- Open Protocol :- Should support ONVIF ver 2 or higher

4. 2KVA Online UPS

- Make:-APC/Emerson/Eaton/Elnova/Numeric
- Type:-2KVA online UPS with internal SMF batteries
- Backup Time:- 30minutes on full load

5. SATA HARD DISC

- 4 TB Hard Disc :-Time Memory :30 Days

6. CAT 6 Cable

- 4 Pair CAT 6 Cable

7. POE Switch Giga Byte 24x2

- Make: Dlink, Cisco, 3 COM

8. 6U Switch rack with all fitting accessories

- Type:- 6U Switch rack with front glass door

Followings are the Technical Specifications of Analog HD Camera CCTV System and its equipment.

S No.	Item	Make	Qty.
1	Indoor Bullet CCTV Camera	CP-Plus, Sony	16 Nos.
2	Outdoor Bullet Camera	CP-Plus, Sony	10 Nos.
3	Hard Disk	Seagate ,Samsung, WD, Sony	8 Nos.
4	RG6 + Power Cable	As per requirement

- **Indoor Analog HD Bullet Camera**

- Sensor: - The camera should be equipped with a minimum of 1/5 " High Quality sensor applying progressive scan technology to record more fluid footage and avoid distortion created by moving objects.
- Resolution: - Minimum 850 TVL for high definition video quality.
- Minimum Illumination: - Color @ 0.01Lux/F1.2, 0Lux/F2.0 (IR on).
- IR Distance: - 30 mtr or more.
- Lens: - The camera should be provided with an OEM fitted 3.6mm to 8 mm Fixed Lens as per side.
- Weather Proof Standard: - IP67 rated weather proofing standards.

- **Outdoor Analog HD Bullet Camera**

- Sensor: - The camera should be equipped with a minimum of 1/3" High Quality sensor applying progressive scan technology to record more fluid footage and avoid distortion created by moving objects.
- Resolution: - Minimum 850 TVL for high definition video quality.
- Minimum Illumination: - Color @ 0.1Lux/0Lux /F1.2, 0Lux/F2.0 (IR on).
- IR Distance: - 30 mtr or more.
- Lens: - The camera should be provided with an OEM fitted 3.6mm to 8mm Fixed Lens as per side.
- Weather Proof Standard: - IP67 rated weather proofing standards.

1. 32 Port Digital Video Recorder

- Up to 32 Camera with 1080P real time preview H.264 Dual –Stream Video Compression ,Full channel @D1 real time recording, All channel Simultaneous real time playback, GRID interfaces & Smart Search, HDMI /VGA /TV /Spot, Simultaneous video output , support 2SATA ports (2HDDs or 1HDDs 1CD/DVD-RW),up to 8TB,4USB2.0,Mobile Software : CMOB,CMS Software :KVMS.

2. Cable

- RG6 + Power Cable

3. SATA HARD DISK

- 16 TB Hard Disc :-Time Memory :30 Days

4. Power Supply

- 12V /DC Power Supply Unit
- Input : 220 V AC

1. College reserve all rights to reject any or all quotations.
2. Last date to submit the sealed quotations is 17/12/2015 up to 1 PM.
3. If any additional charges related to taxes should be mentioned separately or otherwise the total amount will be treated as all inclusive.
4. OEM/Authorized supplier/distributors are requested to enclose Photostat copy of the letter/certificate from the manufacturer (no assembled units) appointing them as authorized distributor for marketing their product.
5. The Number of Camera may vary as per requirement of the College.
6. The work should be completed within 15 Days from the date of award of contract.

The quotation must be addressed to the Principal, Shyam Lal College and the envelope must be superscribed "Sealed Quotation ".

S/d

Principal

Format for Financial Bidding of IP Camera

Sr. No.	Particular	Brand Name	Modal No.	Quantity	Unit cost (in Rs.)	All Taxes	Total Cost (in Rs.)
1	Indoor CCTV Camera (3.6 M.M)			7			
2	Indoor CCTV Camera (6 M.M)			5			
3	Indoor CCTV Camera (8 M.M)			4			
4	Outdoor CCTV Camera(3.6 M.M)			2			
6	Outdoor CCTV Camera (8.M.M)			8			
7	32 Channel Network Recorder			1			
8	Hard Disk			8			
9	CAT 6 Cable (Per Meter)						
10	POE Switch Giga Byte 24 switch port			2			
11	6U Switch rack			1			
12	2 K V A Online UPS			1			
13	Installation Charges						

Format for Financial Bidding Analog HD Camera

Sr. No.	Particular	Brand Name	Modal No.	Quantity	Unit cost (in Rs.)	All Taxes	Total Cost (in Rs.)
1	Indoor CCTV Camera (3.6 M.M)			7			
2	Indoor CCTV Camera (6 M.M)			5			
3	Indoor CCTV Camera (8 M.M)			4			
4	Outdoor CCTV Camera (6.M.M)			2			
5	Outdoor CCTV Camera (6.M.M)			8			
6	32 Channel Digital Video Recorder			1			
7	Hard Disk			8			
8	RG6+ Two Core Power Cable (Per Meter)						
9	2 K V A Online UPS			1			
10	Power supply						
11	Installation Charges						