

University of Kalyani



Centre for Information Resource Management

NOTICE INVITING QUOTATIONS

Ref. No. KU/DETS/CCTV-Sys/2024

Date: July 11, 2024

Sealed quotations are invited from reputed vendors for Supply & Installation of CCTV System in the Department of Engineering & Technological Studies (DETS), the specification (Annexure-I) of which is furnished below:

Sl. No.	Description of Items	Quantity	Remarks(if any)
01.	Dome Camera	15 Nos.	Sealed Quotation be submitted to the CIRM, University of Kalyani,, Kalyani, Nadia 741235,West Bengal
02.	NVR with 2TB HDD	01 Nos.	
03.	16 Port PoE Switch	01 No.	
04.	08 Port PoE Switch	01 No.	
05.	2U Network Rack	02 Nos.	
06.	Cat-6 UTP Cables	02 Boxes.	
07.	Cable Laying ISI Mark PVC Pipe/Casing and Installation with Supporting accessories	LUMSUM	

The above notice may be downloaded from University website www.klyuniv.ac.in.

Last Date of receiving quotations: 22th July, 2024 up to 2 p.m.

Quotation must be made by the bidders in their official pad/letter head and be submitted to the following address:

Centre for Information Resource Management, Kalyani-741235, Nadia, West Bengal

Terms & Conditions:

- Bidders are requested to quote item- wise as far as possible putting rates of the items separately. Other Costs (if any) like taxes, duties, installation cost must be mentioned separately in the quotation. **Bidder must mention the make and model number of the item distinctly while quoting for any item. If possible, bidder must enclose relevant documents including brochure of the quoted item along with its technical specification with model and make. The manufacturer of the items must have National**

and International repute, having experience of selling similar items to Govt. or Govt. aided Educational Institutions and organizations. Further, the manufacturer must have satisfactory service centre base in Kolkata and its surrounding areas.

- Bidder must provide OEM Authorization Certificate.
- Tender Specific Technical Compliance with warranty Certified by OEM Letter Head as per Tender Specification.

- Bidders must submit valid documents as to Trade License, IT, GST, Manufacturing documents (if any) and credential documents for supplying similar type of items.
- In case of any dispute, University decision be taken as granted and all disputes are subject to Kolkata Jurisdiction only.
- Purchaser enjoys the right to select the vendor without assigning any reasons thereof to any bidder and lowest quotation does not ensure any guarantee for awarding purchase order.
- Purchaser may take decision for not buying any or all the items as stated hereinabove due to the fund constraint or for other issues.
- Purchaser also possesses the right to take decision on relaxation of any clause as stated above in case of need for selecting suitable and responsive vender without compromising the quality of the items as mentioned above.

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Annexure-I

Technical Specification of CCTV System

A. Camera Specification:

Image Sensor	1/2.8" 2MP Progressive scan CMOS (0.9071 centimeters)
Minimum Illumination	0.01Lux@F2.0
Effective Pixels	1920(H)x1080(V)
Body Type	Dome
Shutter Speed	Auto/Manual, 1/3~1/100000s
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
Lens	3.6mm fixed lens (2.8mm optional)
Max Aperture	F2.0
Gain Control (AGC)	Auto/Manual
Lens Type	Fixed
S/N Ratio	>56dB
DORI Distance	3.6mm– 49.7m (Detect) 19.9m (Observe) 9.9m (Recognize) 5m (Identify) 2.8mm– 38.6m (Detect) 15.4m (Observe) 7.7m (Recognize) 3.9m (Identify)
Video Compression	Instastream/ H.265/Smart H.264+/H.264/ H.264B/ MJPEG (only supported by the sub stream)
Angle of View	3.6 mm: Horizontal: 84°; Vertical: 45°; Diagonal: 100° 2.8 mm: Horizontal: 102°; Vertical: 54°; Diagonal: 120°
Back Light Comp.	BLC/ HLC/ DWDR
Frame Rate	Main Stream: 1920 × 1080 (1 fps–25/30 fps) Sub stream: 704 × 576 (1 fps–25 fps) 704 × 480 (1 fps–30 fps)
Resolution	2MP (1920 × 1080); 1.3MP (1280 × 960);720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640× 480); CIF (352 × 288/352 × 240)
Motion Detection	Off / On (4 area, Rectangle)
Privacy Mask	4 areas
ICR	Auto(ICR)/Color/B/W
ROI	Yes (4 areas)
Bit Rate	H.265: 12 Kbps–6144 Kbps H.264: 32 Kbps–6144 Kbps
Protocol	IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; SMTP; FTP; DHCP; DNS; NTP; Multicast; ONVIF (Profile S/Profile T); CGI; P2P; Genetec
Ethernet	RJ-45 (10/100Base-T)
User Account	6 Users
Smart Phone	iPhone, iPad, Android Phone
IR Range	IR Range of 30 Mtr., Smart IR
Operating Temperature	-40°C to +60°C (-40°F to +140°F)/less than ≤ 95%
Power Source	DC12V, PoE (802.3af)
Power Consumption	1.4W (12V DC); 2.2W (PoE)
Weatherproof Standard	IP67

B. 16 Channel NVR Specification:

Processor	Industrial-grade embedded processor
Operating System	Embedded LINUX
IP Camera Input	16 channel
Two-way Talk	1 Ch. audio in/1 Ch. out, RCA
User Interface	Web, Local, GUI
Video Output	1 × VGA, 1 × HDMI (simultaneous)
Resolution	12MP; 8MP; 5MP; 4MP; 3MP; 2MP; 720p; D1
AI by Camera	Perimeter protection; SMD Plus
Video Compression	H.265/Smart H.264+/H264
Encode Strategy	Instastream
AI by Device	n/a
Video Display Split	1/4/8/9/16
Audio Compression	PCM; G.711A; G.711U; G.726
Decoding Capability	1-channel 12MP@30 fps; 1-channel 8MP@30 fps; 2-channel 5MP@30 fps; 3-channel 4MP@30 fps; 6-channel 1080p@30 fps
Audio Output	1 channel
Audio Input	1 channel
Camera Blank	Supports
Motion Detection	MD Zones: 396 (22 × 18)
Video Loss	Supports
Alarm Linkage	Recording; snapshot; buzzer; log; preset; email; tour
AI Search	n/a
General Alarm	Motion detection; privacy masking; video loss; PIR alarm
Smart Phone	iPhone, iPad, Android Phone
Abnormal Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; cyber security exception
Hard Disk	1 SATA III ports, up to 16 TB for a single HDD. The maximum HDD capacity varies with environment temperature
Recording Mode	Manual record; alarm record; motion detection record; schedule record
Backup Mode	USB device
Playback	1. Play; pause; stop; fast forward; fast backward; rewind; play by frame 2. Full screen; backup (video clip/file); partially zoom in; audio on/of
Record Interval	n/a
Ethernet	1 × RJ-45, 10/100Mbps self-adaptive Ethernet port
Interface Ports	2 USB Ports (1 × front USB2.0; 1 × back USB2.0)
Protocols	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; DDNS; Alarm Server; InstaOn Cloud; ONVIF (profileT/S/G); CGI; SDK
Power Supply	12V DC, 1.5A
Power Consumption	Total output of NVR is ≤ 10 W (without HDD)

C. 16 Port PoE Switch Specification:

PoE Ports	16 PoE Ports
Network Port	16 x 10/100 Mbps Base-TX RJ45 ports (Data/Power) 2 x 10/100/1000 Mbps Base-T RJ45 ports (Data) 1 x 10/100/1000 Mbps Base-X SFP port (Combo)
LED light	16 x Link/Act LEDs 1 x G1 LED 1 x G2/SFP2 LED 1 x PoE-MAX LED 1 x Power LED
PoE Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE802.3x, IEEE802.3af/at
Switch Capacity	7.2 Gbps
Input Voltage	100-240V/50-60Hz
PoE Power Supply	Ports 1-16 support standard IEEE802.3af/at 30W output per PoE port 130W output of the total PoE Power
Forwarding Rates	5.36 Mpps
Power Consumption	150W output the whole device
MAC Address List	4K
Four Modes	Standard: Default mode of the switch. In this mode, it works as an unmanaged switch; all ports can communicate with each other separately. Priority: In this mode, port G1 and G2/SFP2 serve as uplink ports, ports 1 – 8 serve as high priority port. All ports can communicate with each other separately. Extend: In this mode, data rate of ports 9 - 16 reduces to 10 Mbps, the maximum transmission distance can be 250 meters, and all ports can communicate with each other. VLAN: In this mode, ports 1 - 16 of the switch can communicate with port G1, G2/SFP2 separately, but cannot communicate with each other. You can enable this mode to reduce broadcast storm and isolate DHCP broadcast.
Lightning Protection	≥6KV
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)

D. 8 Port PoE Switch Specification:

Network Port	8, 10/100Mbps; RJ45 ports; Max. 30W Output of Single PoE Port
Uplink Ports	2, 10/100Mbps; Transmission Distance: Default: 0-100m
Switch Capacity	2Gbps (non-blocking)
Forwarding Rates	0.1488 Mbps/port
PoE Standard	IEEE802.3/802.3u/802.3x
PoE Power Supply	1/2(+),3/6(-)
Transmission Distance	0-100m/100Mbps or Max. 250m/10Mbps via Cat.5e or more under Extend mode
MAC Address List	2k
Lightning Protection	Support
PoE Power Budget	96W
ESD Protection	Air discharge: 8KV Contact discharge: 6KV
Power Consumption	<5W
LED light	Light on: Powering Light off: No Power
Power Source	Built-in Power Supply, Input: 100-240V AC, 50/60Hz

Power Light	Green light off: Normal/Default mode Green light on: VLAN mode Green light flash: Extend mode
Working Temp	-20°C ~50°C

E. Cat-6 UTP Cables Specification:

Cat-6 UTP Cables	Category 6 Unshielded Twisted Pair 4 pair 100 Ohm cable shall be compliant with ANSI/TIA/EIA-568-B.2-1 up to 600 Mhz. Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP Non Plenum cable jacket. The 4 pair Unshielded Twisted Pair cable should be UL Listed and ETL Certify. Zero-Bit error throughput test as per IEEE standards verified by ETL The 4 pair Unshielded Twisted Pair cable should be RoHS Compliant. Construction: 4 twisted pairs separated by internal X shaped, 4 channel, full separator. Half shall not be accepted. Conductor Solid Copper Insulator Polyethylene Delay Skew : 35 ns MAX Jacket PVC Attenuation : 22.8dB/100m at 250MHz, 29.4dB/100m at 400MHz, 39dB/100m at 600MHz
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E. Wall Mount Rack Specification:

2U Wall Mount Network Rack	Type: 2U Wall Mount Network Rack Cooling: Roof mounted fan housing units with exhaust axial type fans of 2U rack mounted fan trays with 2/4 fan capacity to take care of heat pockets at specific locations. These units can be mounted anywhere all along the height of the cabinet. Power Module : These are required to mount rack mount equipment's onto the cabinet
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