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(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH NEW DELHI)

**TENDER FOR ESTABLISHMENT OF CCTV SYSTEM FOR NEW
CAMPUS OF CSIR-INDIAN INSTITUTE OF CHEMICAL BIOLOGY SALT
LAKE KOLKATA**

VOLUME – V

TECHNICAL SPECIFICATION

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OF CSIR-INDIAN INSTITUTE OF CHEMICAL BIOLOGY SALT LAKE KOLKATA

Technical Specification

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CCTV SPECIFICATIONS

VIDEO CAMERA SPECIFICATIONS:

1. 36X PTZ CAMERA.

Specification	Compliance (Y/N)	Deviation if any / Remarks
<p>The PTZ Dome camera should have ¼ “ Ex-view HAD CCD Sony make (or Equivalent) ~540 TVL(Color mode), ~ 570 TVL(B/W mode) or better, weather proof 24 hours surveillance, true day/night application, IP-66 standard, lighting & surge protector, high strength metal housing, heater & fan. The camera also should have 128 Preset positions, 3 self-learning auto tracks (120 seconds per track), 6 vector scan groups, intelligent power off real time memory, 8 privacy mask zones. The housing should be weather proof. Other requirements/features for outdoor use should be included.</p>		
<p>Sensor - 1/4” CCD, Sony make or approved equivalent.</p> <p>Effective Pixels - ~752(H) X582(V)</p> <p>Horizontal Resolution - 540 TVL (Color,, ~570 TVL(B/W)</p> <p>Synchronization- Internal/External (V-Lock)</p> <p>Video Out- (1.0V p-p), 75 ohm, BNC</p> <p>Minimum Illumination- 0.1lx (30IRE) 0.0001 lx (30IRE) : Night ON</p> <p>Electronic Shutter- 1/50~1/10,000 Sec</p> <p>Signal to noise ratio- >50 dB</p>		

BLC-	BLC On/Off		
Aperture Range-	F1.6 (Wide) ~F4.2 (tele)		
Focal Length-	f=3.6mm~ 129.6 mm		
Angular Field of view-	53.8° (wide) - 1.64° (tele)		
Pan Angle-	360° Rotation Capability		
Tilt Angle-	0° ~ 90°		
Auto Scan	ON/OFF		
White Balance-	Manual/Auto/Indoor/Outdoor/ATW		
WDR	- ON/OFF		
Zoom	- 36x Optical Zoom & 12 x Digital Zoom		
PTZ Tours (Pattern) -	At least 3 programmable		
Power input	- 24V AC 2A 50 Hz with Surge Protector		
Pan Speed	- 0.1°~300°/sec		
Tilt speed	- 0.1°~120°/sec		
Preset speed	- 360°/sec		
Turn over	- Digital Turnover		
Preset positions -	128 Maximum		
Power off real time memory	- Yes		
Camera ID range	- 0~255		
Control	- RS~485		
Operation temperature	~-20°c to ~ 55°c		
Power consumption	- 35 W		
Certification	- UL/CE, FCC		

2. FIXED INDOOR COLOR FOR DAY AND NIGHT USE DOME CAMERA WITH 2.8~10 VARIFOCAAL LENS:

Specification	Compliance (Y/N)	Deviation if any / Remarks
The dome camera should have ~530 TVL or more with enhanced backlight compensation with enhanced backlight compensation with WDR, BMB, minimum illumination 0.001 Lux with true day/night feature. The camera should also have enhanced functions with DSP, Digital noise reduction, picture in picture, Quad view, Mirror, Digital Zoom, motion detection, 3 axis rotation and 360 degree + 10 degree horizontal rotation.		
<p>Video Standard PAL</p> <p>Image sensor 1/3" Interline transfer CCD (Sony Make) or approved equivalent.</p> <p>Effective Pixels ~750(H) x 582(V)</p> <p>Horizontal resolution ~530 TVL or ore.</p> <p>Minimum Illumination 1lx (50IRE)</p> <p> 0.01 lx (TDN)</p> <p>Video Output 1.0 V p-p, 75 ohms</p> <p>Synchronization Internal</p> <p>BLC BLC (off/low/medium/high), BMB,</p> <p> WDR (0-20 adjustable)</p> <p>S/N Ratio (dB) > 50dB</p> <p>Auto gain control (AGC) 0-40 dB</p> <p>AES (sec) 1/50 – 1/100,00sec.</p> <p>Lens 2.8-10 MM</p>		

White Balance	ATW/AWC/One-push Lock/Indoor/Outdoor/Manual.		
Power source	12 VDC (10-14 VDC)		
Operation Temperature	-10 ° C to 55 ° C		
Mounting	Ceiling or wall bracket mounting depending on location		
Certification	UL/CE, FCC		

3. 16 CHANNEL DIGITAL VIDEO RECORDER

Specification	Compliance (Y/N)	Deviation if any / Remarks
The DVR should have 16 channel real – time recording and playback in genuine 400/480 fps D1 resolution, H.264 compression, dual encoding support for network transmission and remote access monitoring, support dual encoding streams, flexible for network transmission and mobile phone monitoring, 8 TB SATA hard disk supports up to 16 TB, HDMI, VGA support 1080P high definition video output on 16:9 LCD monitor, dual stream, multicast supported, embedded latest operation system, video record anti- temper, backup through USB or network, Alarm inputs & outputs, supports multi PTZ protocols. Multicast 16 channels individually configurable. The system should have features to connect to network.		
Operating System - Embedded Linux		

Video Compression - Advanced H.264 or better		
Analog Video Output - 16 Channel, BNC (1.0 V Vp-p, 75 ohm), PAL		
Digital Video Output - 4 Channel High-Definition IP Camera		
Audio Compression - G.711 required		
USB Interface - 2xUSB 2.0		
Alarm Input - 16(terminal block)		
Alarm output - 3 outputs, 30 VDC, 1A, NO/NC		
Power supply - ~240 VAC, 50 Hz		
Operation Temperature - 10 ° C to 55 ° C		
Humidity - 10% ~ 90 % non- condensing		
Certification - UL/CE, FCC		

4. 40 " LCD HIGH RESOLUTION MONITOR

Specification	Compliance (Y/N)	Deviation if any / Remarks
Viewable picture area 40" when measured diagonally, LCD screen, SVGA or better supported. Luminance Level 500Cd/m sq, 70 x 576 (4 CIF) or better, programmable with front panel, rated life ~ 100,000 hours at 50 %.		

5. 2.0 KVA UPS(or higher capacity if necessary) with 1 (One) hour backup.

Specification	Compliance (Y/N)	Deviation if any / Remarks
Output Power Capacity - ~1600 Watts/ 2000 VA		
Nominal Output Voltage - 220 V		
Output Voltage Distortion - Less Than 2% at full		
Output frequency (sync to mains) - 50+-2 Hz (auto sensing)		
Input Voltage range - 160-285 V approx.		

6. 1.0 KVA UPS(or higher capacity if necessary) with 1 (One) hour backup.

Specification	Compliance (Y/N)	Deviation if any / Remarks
Output Power Capacity - ~ 800 Watts/ 1000 VA		
Nominal Output Voltage - 220 V		
Output Voltage Distortion - Less Than 2% at full		
Output frequency (sync to mains) - 50+-2 Hz (auto sensing)		
Input Voltage range - 160-285 V approx.		

7. LIST OF APPROVED MANUFACTURERS:

- | | |
|----------------------------------|---|
| 1. Camera | Honeywell/Panasonic/Sony/Bosch |
| 2. DVR & Keyboard | Honeywell/Panasonic/Sony/Bosch |
| 3. LCD Monitor | Sony/ Panasonic/Samsung |
| 4. UPS | APC/Emerson/Eaton |
| 5. Wire & Cable | Finolex/Polycab/Havells/RR Kables/Skytone |
| 6. Switch & Socket | Anchor-Roma/MDS-Mosaic/Wrap around
Plus/North West |
| 7. M.S. Conduit & PVC
Conduit | BEC/AKG/Steel craft |

Other small items as per approved by engineer In-charge.

Details submitted by bidder for Make and Model of the items for establishment of CCTV at IICB, Salt Lake Campus Kolkata

Sr. no.	Item Description	Make of the item	Model of the item
1	2	3	4
(Details as per the Schedule of Quantity)			
1	Fixed Indoor Camera (Honeywell/Panasonic/Sony/Bosch) - As per Sr. no. 1 in the Schedule of Quantity		
2	36X PTZ Camera (Honeywell/Panasonic/Sony/Bosch) - As per Sr. no. 2 in the Schedule of Quantity		
3	Box Type Camera (Honeywell/Panasonic/Sony/Bosch) - As per Sr. no. 3 in the Schedule of Quantity		
4	Keyboard (Honeywell/Panasonic/Sony/Bosch) - As per Sr. no. 4 in the Schedule of Quantity		
5	DVR (Honeywell/Panasonic/Sony/Bosch) - As per Sr. no. 5 in the Schedule of Quantity		
6	40" LCD High Resolution Monitor (Sony/Panasonic/Samsung) - As per sr. no. 6 in the Schedule of Quantity		
7	2.0 KVA UPS (APC/Emerson/Eaton) - As per sr. no. 7 in the Schedule of Quantity		
8	1.0 KVA UPS (APC/Emerson/Eaton) - As per Sr. no. 8 in the Schedule of Quantity		