IMU-KC/Computers/20-21   Date: 28.08.2020

Sub: Quotation for Accessories related with CCTV System for IMU-KC

Quotations are invited through E-mail for supply and installation of the following accessories related with CCTV System for IMU-KC. Bidders are requested to submit their rates based on the following specifications of the accessories:

I. Camera for CCTV System:

Required Quantity: 04 nos.

Technical Specifications:

Specification	Specification Name	Values
CAMERA TYPE	**Type of Camera Housing**	BULLET CAMERA
	IP Camera	Yes
IMAGE SENSOR	**Image Sensor Type**	CMOS
	Image Sensor Size	0.37 Or higher
	Camera Image Sensing capacity (Picture Mode)	2MP Or higher
	Resolution	HD (1280 x 720 Pixel) or Full HD (1920 x 1080 Pixel)
	Day/Night Capable	Yes
	IR illumination Range (mtr.)	30
	Focal Length(mm)	3.6
VIDEO	**Frame Rate (fps)**	25,30,50,60
	Video Streaming	Dual compressed stream
SECURITY	Multi-Level User ID/Password	Yes
	Encrypted Data Transmission	HTTPS (SSL/TSL)
PERFORMANCE	**Minimum Illumination for Capturing Color Image**	0.1 Or lower
	WDR (Wide Dynamic Range)	80 dB
	SNR (Signal to Noise Ratio)	40-50

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पी-19, तारातला रोड़, कोलकता -700 088 / P-19, Taratala Road, Kolkata - 700 088
Phone : (033) 2401 4673 / 74 / 76 / 78 / 1946, Fax : (033) 2401 4333, Hostel : 2401 4675
E-mail : director.kolkata@imu.ac.in
Website : www.merical.ac.in & www.imu.edu.in

	Remote Administration (Remote configuration and status using web based tool)	Yes
	Remote System Update Over Network	Yes
	PC Client (PC application client with a channel recording feature support)	Yes
	Web Client (Viewer through HTTP system configuration)	Yes
	On Screen Display in English	Yes
NETWORK AND INTERFACE	Supported Protocols	UDP,SNMP,IGMP, DHCP,RTP,RSTP,HTTP, SMTP,FTP,ICMP,HTTPS ,DNS,DDNS,RTSP,RTCP ,NTP,UPnP,QoS,TCP/IP, NA
	IP Support	Static
	Signal Processing	Digital Signal Process
	IPv6 ready	Yes
	Mounting bracket	Wall Mounted
POWER SUPPLY	Power Input	24 V DC,12 V DC,PoE
	Power Consumption	10
	Suitable Adapter Shall be Supplied to Make the Equipment Work on 230 V (+/- 10 %), 50 Hz	Yes
WARRANTY / SERVICES	**Warranty**	1 Year or higher
	Time for Replacement of Defective Product During Warranty Period	72 or lower
	Supply of Compatible drivers and software included	Yes
	BIS Registration for safety general requirements as per IS 13252 (Part 1):latest	Yes

II. Video Recorder for CCTV System:

Required Quantity: 01 no.

Technical Specifications:

Specification	Specification Name	Values
TYPE	**Type of Recording Device**	NVR
	IP Camera Support	Yes
	PTZ Camera control Support	Yes
	Housing construction	Aluminum
	Mounting	Rack Mounted
	Capability of Recorder to Work with Other Makes of CCTV Cameras (ONVIF support)	Yes

VIDEO	Number of Video Input Channels	4
	Number of Non-IP based Video input Channels for HVR	4
	Number of IP based Video input Channels for HVR	4
	Number of Video Output Channels	1
	Recording Resolution	Full HD (1920 x 1080)
	Simultaneous Monitoring Connections for All Cameras (Users in Local Network for Client Connection)	2
	Recording Speed for all channels (fps)	6
	Minimum Through put (Mbps)	24
	Display Image Rate	Real time per channel
AUDIO	Audio Support	Yes
	Audio Input	4
	Audio Output	1
	Minimum Number of Simultaneous Channels for Two-way Audio Support	1
SECURITY	Type of Encryption	HTTPS (SSL/TSL),HTTP (SL/TSL),WPA,WPA2, TK IP
	Multi-Level User ID / Password	Yes
ALARM	Alarm Support	Yes
	Pre / Post Alarm Buffer	Yes
	Pre-Alarm Recording	5
	Post-Alarm Recording	5
	Video Content Analytics (VCA)	Trip-wire Detection, Crossing line, Face Recognition, Tampering
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Windows, MAC, Linux
	Supported Network Protocols	UDP,SNMP,IGMP,DHCP, RTP,RSTP,HTTP,HTTPS, DNS,DDNS,RTSP,RTCP, NTP,UPnP,SMTP,FTP,IC MP,QoS,TCP/IP,NA (for DVR)
	Supported Interface	Ethernet,Wifi,HDMI,VGA ,CVBS,Bluetooth,USB,R S 232,RS-422,RS-485
	Physical Layer of Ethernet	10/100/1000 Base TX

	Number of Ethernet Ports	1
	Number of HDMI Ports	1
	Number of VGA Ports	1
	Number of USB Ports	2
FEATURES	Video Loop Support	Yes
	Video Recorder supports recording on NAS Directly	Yes
	Remote Administration (Remote Configuration And Status Using Web Based Tool)	Yes
	System Update (Remote System Update Over Network Using Web Client)	Yes
	PC Client (PC Application Client With A Channel Recording Feature Support)	Yes
	Web Client (Viewer through HTTP system configuration)	Yes
	On Screen Display (In English)	Yes
	Drivers / Compatible Software (Wherever Applicable) Part Of Supply	Yes
	Recording schedule support	Yes
	Bandwidth Control	Yes
	Camera Notification	Spot (POP up Window) on Event
	Network transmission Speed	Real time display @ D1 resolution
PLAYBACK / VIEW / MANAGEMENT	Search	Date, Time, Event, Log, Motion, Bookmarks
	Bookmarks	Forward, Backward, adjustable playback speed, Full Screen, Next Camera, Previous Camera, Repeat
	Page preview	Multi Monitor Support, Video Window, Electronic Map on two separate monitors
	Total Management	Group add, Delete, Group management
	Camera	Add, Edit, Delete, Use Master account, Use Specific account

STORAGE	Internal Hard Drive Interface	SATA III
	Number of Hard Disks (inclusive in the scope of supply)	1
	Storage Capacity of each Hard Disk (TB)	2
	Total Storage Capacity(TB)	6
	Internal Storage Expandable upto (TB)	4
	Number of Hard Disks supported	1
POWER SUPPLY	Power Input	230 ± 10%, 50Hz,12 V DC,24 V DC
	Power Consumption	12
	Suitable Adapter to be Supplied to Make the Equipment Work on 230 V ± 10 %, 50 Hz	Yes
	Redundant Power Supply	Yes
WARRANTY / SERVICES	**Warranty (Year)**	1 or Higher
	Time for Replacement of Defective Product During Warranty Period (Hours)	96
	Conformity to Dry Heat test at Specified Maximum Operating Temperature for 16 hours as per IS :9000 latest	Yes
	Conformity to Damp heat at 40 degree C - 95% RH (cyclic test): two cycles of 16+8 hours as per IS: 9000 latest	Yes
	BIS Registration for safety general requirements as per IS: 13252 (Part 1): latest	Yes
	Certification	FCC,CE,UL,CB,CSA

III. Hard Disk Drive:

Required Quantity: 02 nos.

Technical Specifications:

Specification	Specification Name	Values
Specification	**Capacity of Drive (GB)**	2000
	Media Diameter (cm)	3.5
	Rotational Speed (rpm)	7200
	Interface Type	SATA
	Synchronous Transfer Rate (Maximum) (MB/s)	128
	Buffer (MB)	60
	Cache (MB)	6000
	Warranty (Years)	3

IV. Networking/Server Rack:

Required Quantity: 01 no.

Technical Specifications:

Specification	Specification Name	Values
Specifications	**Type of Server Racks**	Rack Enclosures
	Size of Server Rack Enclosure	4U
	Depth of the Rack (mm)	Upto 450
	Mount Type	Wall mount
	Front glass Door	Yes
	Type of glass used in front door	Transparent Toughened Glass
	Material used for rear door	SPCC Quality Cold Rolled Steel Metal
	Cable channel in rear side for cable management	Yes
	Support cable entry from top or bottom	Yes
	Load Bearing Capacity (Kgs)	22
	Warranty (Years)	1

V. Liquid Crystal Display LCD Panel or Monitors:

Required Quantity: 01 no.

Technical Specifications:

Specification	Specification Name	Values
Specification	**Screen Size (Diagonal) (cm)**	81-82
	Panel Type	In Plane Switching (IPS)
	Resolution (Pixels)	1920 x 1080 (Full HD), 2560 x 1440 (WQHD), 3840 x 2160 (UHD)
	Aspect Ratio	21:9
	Brightness (Nits)	350
	Native Contrast Ratio (Minimum)	1200 : 1
	Viewing Angle (Horizontal : Vertical) (Degree)	178 : 178
	Response Time (millisecond)	6
	Antiglare Coating	Yes
	Split Screen Feature	Available

	Inbuilt Speakers	Available
	VGA Port	Available
	HDMI Port	Available
	DVI-D Port	Available
	Display Port	Available
	Mounting Arrangement	Table Mount
	TCO Certification	TCO-07
	Power Supply	230V AC, 50 Hz
	Type Of Power Supply	External
	On Site OEM Warranty (Year)	3
	Technology	LED Backlit

Terms & Conditions:

1. Bidders should quote their rates for the items as per the specifications mentioned above in their letterhead with official stamp and signature.
2. The rates quoted should be inclusive of all but excluding taxes, which should be stated separately.
3. IMU-KC reserves the right to increase or decrease the required quantities as mentioned above.
4. The rates quoted should be valid for two months from the last date of submission of quotation. IMU-KC may place further orders during the said period depending on requirements.
5. Quality of above items may be checked and confirmed by visiting Shri Chinmoy Sarkar, O.I.C. – Workshop/ Dr. Kalyan Mitra, OIC – Computer/ Shri Anjan Jana, IT Support Staff at IMU-KC before submission of quotation.
6. Items should be delivered and installed preferably within 1 (One) week of placing order.
7. Submission of multiple bids by a single firm will lead to rejection of the bids and IMU-KC may black list such firms from future participation.
8. Quotations should be sent in the E-mail ID of Deputy Registrar, IMU-KC i.e. dradmin.kolkata@imu.ac.in within **09.09.2020**. Quotations received after the scheduled date will be rejected.
9. Payment will be made through Bank Transfer after successful delivery and installation of the items and their acceptance.

28/8/2020

Asst. Registrar (i/c)