<u>Sub: Quotation for Accessories related with Exit exam lab for IMU-KC</u>

Sealed quotations are invited towards the following accessories related with Exit exam laboratory for IMU-KC. Bidders are requested to submit their rates based on the following specification of the accessories:

<u>1. Camera for CCTV System for exit exam Lab:</u>

Required Quantity: 08 nos.

Technical Specifications:

Feature	Specification
Image Sensor	1/2.8" 3MP Progressive scan CMOS
Minimum Illumination	0. 005Lux/F1.4(Color), 0Lux/F1.4(IR on)
Effective Pixels	2048(H) x 1536(V)
Shutter Speed	Auto/Manual, 1/3(4)~1/100000s
White Balance	Auto/Sunny/Night/Outdoor/Customized
Gain Control (AGC)	Auto/Manual
Lens	2.8-12mm motorized
Video Compression	H.265/H.264 / MJPEG
Back Light Compensation	BLC/ HLC/ WDR(140dB)
S/N Ratio	More than 50dB
Video Streaming	Main Stream:3M/1080P (1~25/30fps), Extra Stream: D1/CIF(1 ~ 25/30fps), Third Stream: 1080P/720P/D1(1 ~ 25/30fps)
Resolution	3M(2048× 1536)/1080P(1920× 1080) / 720P(1280× 720) /D1(704× 576) /CIF(352× 288)
Video Output	1 port
Privacy Mask	Up to 4 areas
ICR	Auto (ICR)/Color/B/W
ROI	Up to 4 areas
Audio Input	1 Channel
Audio Compression	G.711a / G.711u/AAC
Audio Output	1 Channel
Alarm IN	2 Channel In
Alarm Out	1 Channel Out
Bit Rate	H.264: 40K ~ 10Mbps

Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP,RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, ONVIF, PSIA, CGI
Smart Detection	Tripwire, Intrusion, Scene Change, Missing/Abandoned, Audio detect, Face detect, People counting, Heat map
Ethernet	RJ-45 (10/100Base-T)
User Account	20 Users
Smart Phone	iPhone, iPad, Android Phone
IR	IR Range of 50 Mtr.

2. 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
	Audio Compression	G.726,G.711,G.722.1,A-Law,U-Law,MP2L2,AAC
	Minimum Number of Simultaneous Channels for Two-way Audio Support	1

SECURITY	Type of Encryption	HTTPS (SSL/TSL),HTTP (SSL/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
	Number of SIM Slots	0
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	Yes

	(Remote System Update Over Network Using Web Client)	
	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	NA
	Redundant Power Supply	Yes
OPERATING CONDITIONS	Minimum Operating Temperature	-10
	Maximum Operating Temperature	55
	Relative Humidity Non Condensing at 40 deg C	80
WARRANTY / SERVICES	Warranty (Year)	1 or Higher
	Time for Replacement of Defective Product During Warranty Period	96

ENVIRONM ENTAL / CERTIFICA TION	Availability of facility and infrastructure for verification of all the parameters, features and capability with the Seller	Yes
	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

3. Hard Disk Drives:

Required Quantity: 01 no.

Technical Specifications:

Specification	Specification Name	Values
Specification	Capacity of Drive (GB)	4000
	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

4. 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
	Dust or water resistant	No
	Weight (Kg)	22.7
	Warranty (Years)	1

5. 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 Arrangment	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

6. Layer 2 Access Switch (3 pieces) (Under PAC)

Technical Specifications of CISCO sg350-28p

Specification	Specification Name	Values
Specification	Type of Switch	Managed
	Technology	PoE+
	Number of 1G Copper Ports	24
	No. of 1 G SFP Port (Uplink)	4
	Console Port	Available
	Switching Capacity -Non Blocking (Gbps)	56
	Throughput (MPPS)	41.66
	Operating System	available
	Basic Layer-3 Protocol	IPv4 routing, Wirespeed IPv6 static routing
	Security Feature	SSL,802.1X,BPDUGuard ,DHCP snooping,IPSour ceGuard,IPMB,SCT,SSD, ACLs,RADIUS/TACACS+ ,Port security
	Management Protocol	Telnet, SSH, SNMP (v1, 2c and 3), NTP, TFTP.
	QoS	Up to 8 egress queues, WRR, Trusted QoS, 802.1p CoS, DiffServ, 2R3C policing, Strict priority
	Operating Temperature Range (Degree C)	0 to 50
	Operating Humidity (RH)(%)	10 to 90
	IPv6 Ready from day one and dully certified	Yes

PoE Power Budget (Watt)	195	
on Site OEM Warranty (Support / Software / hardware)	5	

7. For networking from Room no 106 (1st floor) to propose exit exam lab (2nd floor) and others requirements items, list is tabulated below:

Sl.No.	Description	Quantity	Unit	
1	1000 BASE SFP MM Cisco transceiver	2	Nos	
2	24 Port patch panel (loaded)	3	Nos	
3	MM Fibre Cable (6 core)	60	Mtrs	
4	LIU 6 Port fully loaded with pigtail	2	Nos	
5	LC-LC patch Cord - 1 mtr	2	Nos	
6	Factory Crimp Patch Cord (1 mtr – 60 Pcs), (2 Mtr - 60 Pcs)	120	Nos	
7	PVC Conduit Pipe for Fibre Cable	50	Mtrs	
8	Others as required as per commissioning of the system.			

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 six months from the last date of submission of quotation. IMU-KC may place further orders during the said period depending on requirements.
5. Items should be delivered and installed preferably within 8 (eight) weeks of placing order.
6. 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.
7. Items delivered mentioned above should matched with the existing LAN system.
8. Last date of submission of quotation is 18.10.2021.
9. The quotation is to be submitted in sealed envelope clearly subscribing "Quotation for Accessories related with Exit exam lab.
10. The envelope should be addressed to the Dy. Registrar, Indian Maritime University, P – 19, Taratala Road, Kolkata — 700 088 and deposited in the Tender Box kept at the Dy. Registrar's office (1st floor, Room No. 130) or can be sent by post.
11. The envelopes are to be sealed properly with gum and not by stapler pin.
12. Payment will be made through Bank Transfer after successful delivery of the items and their acceptance.
13. Cancellation of Tender: Notwithstanding anything specified in this bidding document, Purchaser / Indian Maritime University – Kolkata Campus at its sole discretion, unconditionally and without assigning any reason, reserves the right:
    a) To accept OR reject lowest bid or any other bid or all the bids.
    b) To accept any bid in full or in part.
    c) To reject the bid offer not confirming to the tender's terms.