

ODISHA SPACE APPLICATIONS CENTRE
Plot No.45/48(P), Jayadev Vihar, Bhubaneswar-751 023

Corrigendum of ORSAC Tender Notice No.12/2018

Sealed tenders are invited from established and accredited Original Equipment Manufacturer (OEM)/authorized dealers for supply, installation and commissioning of CCTV camera on buy back mode and Wi-Fi system to cover the total building of Odisha Space Applications Centre, Bhubaneswar.

For details please visit Website <http://www.odisha.gov.in> and ORSAC website: <http://www.orsac.gov.in> or in the above office for the tender papers.

Date of issue of Tender Paper	:	:	12.10.18
Date of Pre-Bid meeting	:	:	26.10.18 11.30 A.M.
Last date of submission of Tender	:	:	09.11.18 by 01.00P.M.
Opening of Technical Bid	:	:	12.11.18 at 03.30 P.M.

ORSAC reserves the right to accept/reject/modify & cancel the full tender or part thereof at any time without assigning any reason thereof.

CHIEF EXECUTIVE

ODISHA SPACE APPLICATIONS CENTRE
Dept. Of Science & Technology, Govt. of Odisha
Plot No.45/48(P), Jayadev Vihar, Near Gopabandhu Academy of Administration
Unit-16, Bhubaneswar-751 023

TENDER NOTICE No.12/2018

Sealed tenders are invited from established and accredited Original Equipment Manufacturers OEM/authorized dealers having annual turnover of more than Rupees 50 lakhs for supply, installation & commissioning of the under mentioned items of the following specifications and quantities at Odisha Space Applications Centre, Bhubaneswar.

Sl. No	Item Description	Unit	Quantity	Cost of tender paper
1	CCTV Camera	No.	(As per Schedule-B)	Rs.2000/-
2	WI-FI System	No.	(As per Schedule-B)	
	All materials mentioned above with 5 years comprehensive warranty			

1) Non-transferable tender documents will be available from Odisha Space Applications Centre (ORSAC), Bhubaneswar on payment Rs.2000/- in shape of Demand Draft drawn in favour of Odisha Space Applications Centre. The tender document can be down loaded from the ORSAC **website:** <http://www.orsac.gov.in> and Govt. of Odisha web site <http://www.odisha.gov.in>. The downloaded bid document can also be used provided it is accompanied with a crossed Demand Draft of Rs.2000/- towards cost of the tender document payable at Bhubaneswar drawn in favour of Odisha Space Applications Centre. Tenderers interested to receive tender documents by Registered Post should pay additional amount of Rs.200/- (Rupees Two hundred) only. However, ORSAC will not be responsible for postal delays in delivery of the documents.

2) The Bidder must be ISO certified company. Company having service centre facility at Bhubaneswar shall be preferred.

3) The Tenderers are required to furnish self-attested copies of GST registration certificate issued by the competent authority of the State of Odisha / other states as applicable along with the tender.

4) The Tenderers are required to deposit Rs.50,000/- (Rupees fifty thousand) only as Earnest Money Deposit (**EMD**) in shape of Bank Draft payable at Bhubaneswar drawn in favour of Odisha Space Applications Centre, Bhubaneswar.

5) Performance security shall be deducted from Bills as per guidelines given in the tender documents.

6) The items conforming to required specifications are to be delivered to the consignee (ORSAC) at Bhubaneswar in Odisha and the tenderer has to quote the rates giving details of taxes, levies charges, premium etc. separately as stated in the tender document.

7) The tenders should be submitted after due compliance with guidelines given in the tender documents under Schedule (A) Conditions of Contract, Schedule (B)- Technical specifications, Schedule(C)- Delivery Destination, Schedule (D)- Bid Form & Schedule (E)- Price Schedule Tenders submitted in incomplete form shall be rejected outright.

8) The filled in sealed tenders containing Technical Bid and Price Bid in double cover system as per instruction given in tender documents, shall be submitted in the Office of the ORSAC, Bhubaneswar by Registered Post, Courier service or dropping in the tender box. Tenders received after due date and time shall not be entertained.

9) The tender papers will be available for sale in the office of the ORSAC between **11 AM to 4.30 PM** on Odisha govt. official working days till **1 PM** of **08.11.2018**. The sealed tenders will be received till **01.00 PM** of **09.11.2018** in Office of the ORSAC. The technical bids will be opened on 12.11.2018 at **3.30 P.M** in presence of the Tenderers or their authorized representatives, if they so desire. The opening of price bids will be announced later on. Price Bids will be opened in respect of only those tenderers who qualify in the technical bid assessment.

10) ORSAC reserves the right to cancel any or all tenders without assigning any reason thereof.

CHIEF EXECUTIVE

Schedule (A) – Conditions of contract for Tender No.12/2018

- 1) The Tender papers include instructions issued in the Tender notice along with the Schedule (A) - Conditions of Contract, Schedule (B) – Technical Specifications, Schedule (C) – Delivery Destination, schedule (D) – Bid Form, Schedule (E) – Price Schedule.
- 2) The Tenderers shall submit the following documents and information with the tender. Lack of complete and adequate information under any of the parameter may render the bid disqualified. The technical document shall be tagged and indexed properly to find out the below documents easily.

a) Technical Documents:

- i) Copy of Tender Notice
- ii) Acceptance of Schedule (A) & Schedule (B)
- iii) Documentary evidence that the tenderer is either Original Equipment Manufacturer (OEM) or authorized dealer of the OEM with the end to end support from OEM, a confirmation letter from OEM shall be produced.
- iv) Self-attested copies of GST registration certificate from the competent Authority of the State of Odisha/ other state as applicable.
- v) Technical information of product released by the OEM.
- vi) Documents in support of supplies made during last 2 years to different Government/public or both sector undertaking.
- vii) The firm should submit an undertaking for providing service/maintenance during the warranty period effective from the date of commissioning with terms & conditions as well as for taking Annual maintenance contract (AMC) after the warranty period.
- viii) Bank draft of Rs.2000/- (Rupees two thousand) only towards tender paper cost.
- ix) Self-attested copies of Audited Balance Sheet for last 3 years
- x) Service facility at Bhubaneswar & outside.
- xi) Copy of the ISO certificate.
- xii) Bank draft of Rs.50,000/- (Rupees fifty thousand) only drawn in favour of Odisha Space Applications Centre towards EMD.

b) For Price Bid:

- i) Acceptance of Schedule (C) Delivery destination
 - ii) Filled up Schedule (D) – Bid form
 - iii) Filled up Schedule (E) – Price Schedule
- 3) The quoted rates shall be for destination mentioned in the Schedule (C) Delivery Destination, inclusive of all taxes, duties, levies, charges, transportation cost, transit insurance cost. The item should be shown separately along with the basic rate. Prices written in words shall be accepted in case of any discrepancy. Rates with conditionality or provision of escalation will be rejected.
 - 4) Validity of period of the Tender shall be 60 days from the date of opening of the price bid.

- 5) The items are to be delivered in good condition at ORSAC, Bhubaneswar as mentioned in the Schedule (C) for delivery destination.
- 6) The H/W & S/W should be new and unused. The items shall be of reputed OEM and should also confirm to latest models, designs and standards i.e. as per Schedule-B. ORSAC reserves the right to purchase whole or part of the items as required.
- 7) If any item fails to satisfy requirement of standards, the item shall not be accepted and the tenderer at his own cost shall remove it from point of delivery.
- 8) Items are to be delivered within **30** days of issue of purchase order.
- 9) The tenderer shall give a minimum warranty period of 5 years from the date of commissioning of the items at destination and shall submit a declaration from OEM regarding the same.
- 10) The tenderer has to rectify defects in the items supplied within 7 days of issue of intimation during the warranty period, failing which an amount of one percent of performance security will be forfeited per day of delay.
- 11) If the tenderer fails to supply the items within prescribed time period it shall be treated as breach of contract. The EMD may be forfeited and the supply order cancelled for which the tenderer shall remain fully responsible without any liability of ORSAC.

ORSAC may consider receiving the items beyond stipulated date by imposing liquidated damage of 0.50 (zero point five zero) percent of cost per week of delay subject to maximum penalty of 5% of the value of each item inclusive of all taxes, duties, levies and charges. Part of the week shall be reckoned as one week.

- 12) Tenders are to be submitted in a double cover system. The 1st sealed envelope should be marked as Technical Bid and shall contain the Technical Documents and the 2nd sealed envelope shall contain the Price Bid and should be marked as Price Bid. Both the 1st and 2nd sealed envelopes are then to be put inside a 3rd envelope duly marked **“Supply, installation & commissioning of CCTV camera on buy back mode and Wi-Fi system”**. From and to addresses shall be written on each of the envelopes.
- 13) Submission of sealed tenders shall be by Registered Post, courier service or dropping in the tender box. ORSAC shall not be responsible for postal or courier service delays or missing of the documents during transit. Tenders reaching late (as per time mentioned in the Tender Notice) shall not be considered by ORSAC.
- 14) Conditional Tenders may be rejected. Decision of the ORSAC authorities in this regard shall be final.
- 15) **Terms of Payment** : Payment to the successful tenderer shall be made only after items are received in good and serviceable condition as per conditions

stipulated in the tender documents along with required documents submitted to ORSAC in support of Bills. 90% of the bill amount will be released after successful commissioning & operational of the system & 10% of the Bill amount will be retained towards "**Performance Security**". This amount can be released on submission of Bank Guarantee for equal amount issued by any Nationalized Bank at Bhubaneswar, which will remain valid till three months beyond the Guarantee period.

- 16)The tenderer shall not raise any claim in any manner after the Bill amounts are cleared against the purchase order.
- 17)The tenderer shall quote AMC in percentage to be charged after completion of 5 years comprehensive warranty.
- 18) In case of any dispute between the Tenderers and ORSAC regarding interpretation of Tender document conditions, the decision of the Chief Executive, ORSAC shall be final and binding.
- 19)Jurisdiction of Court – Civil Suits, if any, arising out of the contract shall have to be filed at Bhubaneswar under Khurda district. Writ petitions, Civil & Criminal, shall be filed in the High Court of Orissa, Cuttack.
- 20)The EMD amount shall be returned to the successful tenderer after receipt of Performance Security amount.

Accepted the above conditions under schedule (A) of tender.

(Signature of Tenderer)

Name:

Address:

Schedule (B) – Technical Specification for Tender No. 12/2018

4K H.265 64CH or higher 8HDD NVR with RAID

Quantity-1

Feature	Specification	Compliances Yes/No
Video/Audio Input		
IP video input	64-ch or higher	
Two-way Audio Input	1-ch,	
Network		
Incoming Bandwidth	320Mbps or more	
Outgoing Bandwidth	200Mbps or more	
Remote Connection	32 Users,	
Internet Protocol	TCP/UDP/HTTP/MULTICAST/UPnP/DHCP/PPPoE/DDNS/NFS/FTP /NTP/HTTPS/RTSP/SMTP/HTTPS/SADP	
Email	Activated by Alarm	
NVR Should Support ANR function	Auto download video from camera SD card, Which was stored when disconnection	
Video/Audio Output		
HDMI Output	2-ch	
VGA Output	2-ch	
Frame Rate	Mainstream 25fps(P)/30fps(N) Sub stream 25fps(P)/30fps(N)	
Supported Resolution	12MP/4K(3840*2160,3264*2448,3296*2472)/6MP(2752*2208, 3008*2008,2408*2008)	
	5MP(2560*1920,2592*1944,2592*1920,2528*2128/4MP(2560 *1440,2592*1520)	
	3MP(2048*1536)/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
Live View/Playback	12MP/4K(3840*2160,3264*2448,3296*2472)/6MP(2752*2208, 3008*2008,2408*2008)	
	5MP(2560*1920,2592*1944,2592*1920,2528*2128/4MP(2560 *1440,2592*1520)	
	3MP(2048*1536)/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
Capability	2-ch 12MP/4-ch 4K/6MP/5-ch 5MP/8-ch 4MP/9-ch 3MP/16-ch 1080P/32-ch 720P/64-ch 4CIF	
Hard Disk (The device should supply with HDDs)		
SATA	8 SATA for 8 HDDs	
eSATA	1 port Only for Backup	
Capacity	64 TB total, 8TB Capacity for Each HDD must	
RAID		
RAID Mode	JBOD,RAID0,RAID1,RAID5,RAID6,RAID10	
Hot Backup Disk	Overall and Raid Hot Backup Disk	
RAID Management	One-key Configuration, and Support Manual and Auto Rebuild	
Redundant Recording	Y, Support 200Mbps Input	
External Interface		
Network Interface	2 RJ-45 10/100/1000Mbps Self-adaptive Ethernet Interfaces	
Hot Standby	N+M High Availability	

Video Analytics(VCA)	Tripwire/Double Tripwire/Perimeter/Object Abandon/Object Lost/Running/Loitering/Parking/Early Warning/Crowd/Face Detection/People Counting/Audio Abnormal Detection/Video Abnormal Detection/On duty Detection	
Smart Search	Quickly Search Target Videos according to Channel No., Records Type, Records Time, File Type and VCA	
Trigger Recording	Manual/Timing/Motion Detection/Port Alarm/ VCA Alarm/Video Occlusion	
One Key Control	Intercom, Recording	
Records Format	H.265 Format	
Onvif	Onvif(Profile S)	
Working Temperature	-10 °C ~ +55 °C (+14 °F~ + 131 °F)	
Certificate	CE/FCC/UL	
4K H.265 64CH or higher for Viewing		
		Quantity-1
Feature	Specification	Compliances Yes/No
Video/Audio Input		
IP video input	64-ch or higher	
Two-way Audio Input	1-ch,	
Network		
Incoming Bandwidth	320Mbps or more	
Outgoing Bandwidth	200Mbps or more	
Remote Connection	32 Users,	
Internet Protocol	TCP/UDP/HTTP/MULTICAST/UPnP/DHCP/PPPoE/DDNS/NFS/FTP /NTP/HTTPS/RTSP/SMTP/HTTPS/SADP	
Email	Activated by Alarm	
NVR Should Support ANR function	Auto download video from camera SD card, Which was stored when disconnection	
Video/Audio Output		
HDMI Output	2-ch	
VGA Output	2-ch	
Frame Rate	Mainstream 25fps(P)/30fps(N) Sub stream 25fps(P)/30fps(N)	
Supported Resolution	12MP/4K(3840*2160,3264*2448,3296*2472)/6MP(2752*2208, 3008*2008,2408*2008)	
	5MP(2560*1920,2592*1944,2592*1920,2528*2128/4MP(2560 *1440,2592*1520)	
	3MP(2048*1536)/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	
Live View/Playback	12MP/4K(3840*2160,3264*2448,3296*2472)/6MP(2752*2208, 3008*2008,2408*2008)	
	5MP(2560*1920,2592*1944,2592*1920,2528*2128/4MP(2560 *1440,2592*1520)	
	3MP(2048*1536)/1080P/UXGA/720P/VGA/4CIF/DCIF/2CIF/CIF/QCIF	

Capability	2-ch 12MP/4-ch 4K/6MP/5-ch 5MP/8-ch 4MP/9-ch 3MP/16-ch 1080P/32-ch 720P/64-ch 4CIF	
Hard Disk		
SATA	8 SATA for 8 HDDs	
eSATA	1 port Only for Backup	
Capacity	64 TB total, 8TB Capacity for Each HDD must	
RAID		
RAID Mode	JBOD,RAID0,RAID1,RAID5,RAID6,RAID10	
Hot Backup Disk	Overall and Raid Hot Backup Disk	
RAID Management	One-key Configuration, and Support Manual and Auto Rebuild	
Redundant Recording	Y, Support 200Mbps Input	
External Interface		
Network Interface	2 RJ-45 10/100/1000Mbps Self-adaptive Ethernet Interfaces	
Hot Standby	N+M High Availability	
Video Analytics(VCA)	Tripwire/Double Tripwire/Perimeter/Object Abandon/Object Lost/Running/Loitering/Parking/Early Warning/Crowd/Face Detection/People Counting/Audio Abnormal Detection/Video Abnormal Detection/On duty Detection	
Smart Search	Quickly Search Target Videos according to Channel No., Records Type, Records Time, File Type and VCA	
Trigger Recording	Manual/Timing/Motion Detection/Port Alarm/ VCA Alarm/Video Occlusion	
One Key Control	Intercom, Recording	
Records Format	H.265 Format	
Onvif	Onvif(Profile S)	
Working Temperature	-10 °C ~ +55 °C (+14 °F~ + 131 °F)	
Certificate	CE/FCC/UL	
Make	Should be the same as NVR	

5.0 MP Low Light Dome Camera (Indoor Camera)

		Quantity-35
Feature	Specification	Compliances Yes/No
Camera		
Image Sensor	1/2.8" CMOS sensor	
Min. Illumination	Color: 0.002Lux(F1.2,AGC ON)	
	B/W: 0.001Lux(F1.2,AGC ON); 0Lux with IR	
Shutter Time	1s~1/100000s	
Lens	2.8mm	
	Auto Iris	
	Day& Night-(Dual IR Cut Filter with Auto Switch)	
	Support Super WDR120dB or more	
	3D DNR, BLC,HLC, Smart Defog, Corridor Format,EIS,ROI-4 Zones, Privacy Mask , S/N ratio- >60db	
Image		
Max. Image Resolution	2592x1944	

Frame Rate	2592*1944@18fps, 2560*1920@20fps, 2592*1520@25fps, 1440P@25fps, QXGA@30fps, 1080P@30fps, 960P@30fps, 720P@30fps, 640*360@30fps,4CIF@30fps, 2CIF@30fps, CIF@30fps	
Triple Stream	Mainstream:2592x1944	
	Substream:D1(704x576)	
	3rd stream:CIF(352x288)	
ANR	Auto store video in SD card when NVR disconnected, and upload video to NVR when resumed connection	
Video Analytics	Tripwire/Double Tripwire/Perimeter/Object Abandon/Object Lost/Running/Loitering/Parking/Crowd/Audio Abnormal Detection/Video Abnormal Detection	
Alarm Trigger	Motion Detection/IP Conflict/MAC Conflict/Port Alarm/Mask Alarm	
Protocols	IPv4/IPv6/HTTP/802.1x/FTP/SMTP/UPnP/SNMP/DNS/DDNS/NTP/RTSP/TCP/UDP/DHCP/PPPoE	
Video Compression	H.265 HP/MP/BP/M-JPEG	
Video Bit Rate	32Kbps~16Mbps	
User Permission	4 Level/8 Users	
Remote Connection	5 Users Access at the Same Time	
System Compatibility	ONVIF (Profile S), SDK	
Communication Interface	1-ch RJ45 10M / 100M Ethernet Interface	
Audio Input	1-ch, Mic in	
On-board Storage	Should have MicroSD Card Slot and support up to 64GB	
Operating Conditions	-35°C~60°C(IR OFF) /-35°C~40°C(IR ON), 0~95% RHG	
Power Supply	DC 12 V ± 10%, PoE (802.3af)	
Circuit Protection	TVS 6000V, Lightning/Surge Protection: (Power 2000V, RJ45 1000V)	
Impact Protection	IP67, IK10	
IR Range	30m	
Certificate	CE/FCC/UL	
Make	Should be the same as NVR	

5.0 MP Low Light Bullet Camera (Indoor Camera)

		Quantity-2
Feature	Specification	Compliances Yes/No
Camera		
Image Sensor	1/2.8" CMOS sensor	
Min. Illumination	Color: 0.002Lux(F1.2,AGC ON)	
	B/W: 0.001Lux(F1.2,AGC ON); 0Lux with IR	
Shutter Time	1s~1/100000s	
Lens	2.8mm/4mm	
	Auto Iris	
	Day& Night-(Dual IR Cut Filter with Auto Switch)	
	Support Super WDR120dB or more	
	3D DNR, BLC, HLC, Smart Defog, Corridor Format,EIS,ROI-4 Zones, Privacy Mask, S/N ratio- >60db	
Image		
Max. Image Resolution	2592x1944	

Frame Rate	2592*1944@18fps, 2560*1920@20fps, 2592*1520@25fps , 1440P@25fps, QXGA@30fps, 1080P@30fps, 960P@30fps, 720P@30fps , 640*360@30fps,4CIF@30fps, 2CIF@30fps, CIF@30fps	
Triple Stream	Mainstream:2592x1944	
	Substream:D1(704x576)	
	3rd stream: CIF(352x288)	
ANR	Auto store video in SD card when NVR disconnected, and upload video to NVR when resumed connection	
Video Analytics	Tripwire/Double Tripwire/Perimeter/Object Abandon/Object Lost/Running/Loitering/Parking/Crowd/Audio Abnormal Detection/Video Abnormal Detection	
Alarm Trigger	Motion Detection/IP Conflict/MAC Conflict/Port Alarm/Mask Alarm	
Protocols	IPv4/IPv6/HTTP/802.1x/FTP/SMTP/UPnP/SNMP/DNS/DDNS/NTP/RTSP/TCP/U DP/DHCP/PPPoE	
Video Compression	H.265 HP/MP/BP/M-JPEG	
Video Bit Rate	32Kbps~16Mbps	
User Permission	4 Level/8 Users	
Remote Connection	5 Users Access at the Same Time	
System Compatibility	ONVIF (Profile S), SDK	
Communication Interface	1-ch RJ45 10M / 100M Ethernet Interface	
Audio Input	1-ch, Mic in	
On-board Storage	Should have MicroSD Card Slot and support up to 64GB	
Operating Conditions	-35°C~60°C(IR OFF) /-35°C~40°C(IR ON), 0~95% RHG	
Power Supply	DC 12 V ± 10%, PoE (802.3af)	
Circuit Protection	TVS 6000V, Lightning/Surge Protection: (Power 2000V, RJ45 1000V)	
Impact Protection	IP67	
IR Range	30m	
Certificate	CE/FCC/UL	
Make	Should be the same as NVR	

2.0 MP Ultra Low Light Bullet Camera50M IR (Outdoor Camera)

		Quantity-8
Feature	Specification	Compliances Yes/No
Camera		
Image Sensor	1/2.8" SONY CMOS	
Min. Illumination	Color: 0.0008 Lux @(F1.2, AGC ON)	
Shutter Time	1s to 1/100000s	
Lens	4mm, Angle of View: 90°	
Image Settings	Support	
	Auto Iris	
	Day& Night-(Dual IR Cut Filter with Auto Switch)	
	Support WDR120dB or more	
	NIR,3D DNR, HLC, Dual-ICR, AWB, AGC, BLC	
Image		
Max. Image Resolution	1920x1080@ 30fps	
Triple Stream	Mainstream:1080P(1920x1080)	
	Substream:D1(704x576)	

	3rd stream: CIF (352x288)	
ANR	Auto store video in SD card when NVR disconnected, and upload video to NVR when resumed connection	
Video Analytics	Tripwire/Double Tripwire/Perimeter/Object Abandon/Object Lost/Running/Loitering/Parking/Crowd/Audio Abnormal Detection/Video Abnormal Detection	
Alarm Trigger	Motion Detection/IP Conflict/MAC Conflict/Port Alarm/Mask Alarm	
Protocols	IPv4/IPv6/HTTP/802.1x/FTP/SMTP/UPnP/SNMP/DNS/DDNS/NTP/RTSP/TC/UDP/DHCP/PPPoE	
Video Compression	H.265 HP/MP/BP/M-JPEG	
User Permission	4 Level/8 Users	
Remote Connection	5 Users Access at the Same Time	
System Compatibility	ONVIF (Profile S), SDK	
Communication Interface	1-ch RJ45 10M / 100M Ethernet Interface	
On-board Storage	Inbuilt 128GB MicroSD Card	
Operating Conditions	-35°C~60°C(IR OFF) /-35°C~40°C(IR ON), 0~95% RHG	
Power Supply	DC 12 V ± 10%, PoE (802.3af)	
Circuit Protection	TVS 6000V, Lightning/Surge Protection: (Power 2000V, RJ45 1000V)	
Impact Protection	IP67,	
IR Range	50m	
Certificate	CE/FCC/UL	
Make	Should be the same as NVR	

H.265 2MP 33x ultra low light PTZ camera (Outdoor Camera)

		Quantity-1
Feature	Specification	Compliances Yes/No
Image Sensor	1/2.8" CMOS	
Effective Pixels	1920(H)x1080(V)	
Minimum Illumination	Color: 0.002 Lux @(F1.6,AGC ON)	
	B/W:0.001Lux @(F1.6,AGC ON) 0 Lux with IR	
Shutter Time	1s-1/100000s	
Day& Night	Dual-ICR	
Optical Zoom	33x	
Digital Zoom	16x	
Camera Support	HLC,BLC, Smart Defog,3D- DNR	
Super WDR	Support Super WDR120dB or more	
Focal Length	4.6mm- 152mm or Higher	
Pan Range	360° Endless	
Pan Speed	Pan Manual Speed: 0.1° -120°/s	
Tilt Range	-16°-90° (Auto Flip)	
Tilt Speed	Tilt Manual Speed: 0.1° -120°/s	
	Tilt Preset Speed: 180°/s	
Number of Preset	500 or higher	
IR Distance	200m or higher	
Protocols	IPv4/IPv6/HTTP/802.1x/FTP/SMTP/UPnP/SNMP	

	DNS/DDNS/NTP/RTSP/TCP/UDP/DHCP/PPPoE	
Image Compression	H.265/H.264H/H.264M/H.264B/MJPEG	
In board Storage	Inbuilt 128GB MicroSD Card	
System Compatibility	ONVIF (Profile S), SDK, CGI	
Video Analytics(VCA)	Tripwire/Double Tripwire/Perimeter/Object Abandon Object Lost/Running/Loitering/Parking/Crowd Audio Abnormal Detection/Video Abnormal Detection	
Intelligent Alarm	Motion Detection, Mask Alarm, Port Alarm, Network Disable Alarm, IP Conflict, MAC Conflict Detection	
ROI Encoding	7 Dynamic Areas	
IR Range	IR Support 200 meter	
Circuit Protection	TVS 6000V, Lightning/ Surge 4000V Protection	
Impact Protection	IP 66	
certificate	CE/FCC/UL	
Make	Should be the same as NVR	

Technical Specifications for WLAN Network

Major Feature	Description
General	WLAN OEM must be in a Leader quadrant of WLAN Gartner Magic Quadrant since last 3 years
Architecture	WLAN Controller should be hardware based controller OR appliance-based controller in which APs acts as a virtual controller.
Scalability	In case of hardware controller, controller shall be capable of supporting minimum of 128 AP's from day one for future scalability. In case of software-based/virtual controller, single or multiple clusters should provide same scalability.
Management	WLAN network shall have centralized management i.e. configuration of a single controller/virtual controller shall thereby result in the configuration of all access points.
High Availability	High availability should be provided for controllers. In the event of a failure of the hardware/virtual controller, a standby controller shall automatically take over the master role.
WLAN Features	Should support Band Steering feature that forces the dual-band capable clients to the 5 GHz band on dual-band access points.
	Should balance wireless clients across APs on different channels, based upon the client load on the APs.
	Should support internal DHCP server.
	WLAN Solution IEEE 802.11r, 802.11k and 802.11v roaming standards.
Network Policy features	WLAN solution should be able to create access policies in order to allow or block packets for inbound traffic/outbound traffic.
	WLAN solution (either integrated or through external firewall) shall have a capacity to inspect all traffic from each user session and allow or deny any traffic that does not satisfy specified policies.
	WLAN solution (either integrated or through external firewall) shall provide identity-based controls to enforce application-layer security and prioritization.
	WLAN solution shall be capable of controlling bandwidth per user and option shall be available to control BW in upstream and downstream directions.
Spectrum scanning	WLAN solution shall be capable enough to scan the 2.4 or 5GHz radio bands to identify sources of Wi-Fi and NON WI-FI interference sources, and make the results available locally and to a remote management solution.
	All spectrum information (Wifi and NON-Wifi) should be displayed in UI charts. Min 3 charts for doing troubleshooting.
	Single AP should be able to perform security scanning and serving WLAN clients simultaneously.
WLAN Security	An integrated or External wireless intrusion prevention system shall be proposed with following features:
	1. Should prevent users connecting to rogue AP and also prevent an outside user trying to connect to campus WLAN.
	2. Should prevent Ad-hoc connections (i.e. clients forming a network amongst themselves without an AP)
	3. Should prevent windows bridge (i.e. client that is associated to AP is also connected to wired network and enabled bridging between two interfaces)
Access Points	Please refer to the below specification.

Indoor Wireless Access Point		
		Quantity – 25
Sr. No	Specifications	Compliance (Yes/No)
Indoor Access Points 802.11a/b/g/n/ac Wave 2 Description		
1	Access Point radio should be minimum 2x2 MIMO with 2 spatial streams on 5ghz.	
2	Access Point should be 802.11ac Wave 2 ready from day one	
3	AP should have 1x10/100/1000 Ge LAN port.	
4	Aggregate peak data rate of minimum 1.0Gbps or higher	
5	Access Point shall have integrated or external Antenna.	
6	The Max transit power of the AP + Antenna should be as per WPC norms for indoor Access Points. OEM to give a undertaking letter stating that the AP will configured as per WPC guidelines for indoor AP and also submit the WPC certificate showing approval.	
7	Access point should have support Internal/External Bluetooth Low energy beacon to support advance location based services for Mobile engagement solutions and Applications.	
8	Should support 16x BSSID per AP radio.	
9	Access point should support 802.11ac beamforming for 802.11ac.	
10	The access point should be capable of performing security scanning and serving clients on the same radio. It should be also capable of performing spectrum analysis and security scanning using same radio.	
11	Should support BPSK, QPSK, 16-QAM, 64-QAM and 256 QAM (256 QAM for 802.11ac only) modulation types	
12	Access point should support 802.3af POE standard.	
13	Access point should have option of external power adaptor as well.	
14	Access point should have console port.	
15	Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.	
16	Must operate as a sensor for wireless IPS	
17	AP model proposed must be able to be both a client-serving AP and a monitor-only AP for Intrusion Prevention services	
18	The Access Point should have the technology to improve downlink performance to all mobile devices.	
19	Access point must incorporate radio resource management for power, channel, coverage hole detection and performance optimization	
20	AP mounting kit should be with locking mechanism so that AP cannot be removed without using special tools.	
21	AP should have Kensington lock slot.	
22	AP should support standalone mode/ Inbuilt Virtual controller mode for specific requirements.	
23	<p>AP should be UL 2043 certified, CB Scheme Safety, cTUVus</p> <ul style="list-style-type: none"> • Wi-Fi Alliance (WFA) certified 802.11a/b/g/n/ac • Wi-Fi Alliance certified (WFA) 802.11ac with Wave 2 features • Passpoint® (Release 2) • EMC Directive 2014/30/EU • Low Voltage Directive 2014/35/EU • UL/IEC/EN 60950 • EN 60601-1-1 and EN 60601-1-2 	

Technical Specifications for Layer 2 POE Switch

		Qnt-07 Nos
SL	Description	Complied (Yes/No)
A	Architecture	
1	24 nos 1000 BaseT RJ45 PoE ports and 2 nos 1000Base-X ports (SFP)	
2	Minimum switching capacity of 52Gbps and Forwarding capacity of 38Mpps	
3	Minimum of 16000 MAC address entries	
4	Minimum 64MB Flash & minimum 256MB RAM	
5	Minimum 370 watt POE capacity	
6	Shall be rack mountable with required accessories	
B	Layer-2 Features	
1	Shall support IEEE 802.1Q, IEEE 802.3ad LACP, Minimum 200 VLANs	
2	Shall support IEEE 802.1w MSTP/equivalent. Should be backward compatible with STP & RSTP.	
3	Shall support jumbo frames	
C	Quality of Service & Convergence	
1	Shall support IEEE 802.1p QoS features with minimum 4 hardware queues	
2	Shall support LLDP/CDP/equivalent	
D	Security	
1	Shall have security features such as: SSL, ACLs, 802.1x, Private VLAN/equivalent, Dynamic ARP Inspection/equivalent, STP BPDU Guard, STP Root Guard, and DoS protection	
E	Management	
1	Shall support IEEE 802.3AB LLDP	
2	Shall support secure management access methods (GUI and MIB) through SSL, and SNMP	
F	Warranty & Support	
1	Shall have onsite hardware replacement as well as software update and upgrade support directly from OEM at no additional cost to the buyer for 3-years from the date of completion of acceptance test	
G	OEM Make: Shall be listed in the Gartner' quadrant of last 3 years for Enterprise LAN or Shall be from the top 3 OEMs as per latest IDC report	

Sr No	Passive Technical Specification
A	<u>General Specifications for Passive Components Cat6 LSZH & Components</u>
1	All copper cabling components should be from one OEM
2	The Cabling OEM should have 10 years presence. Documents should be attached.
3	The OEM should be ISO 9001:2008 & ISO 14001: 2004 Certifications. Certificate copy should be attached.
4	The complete cabling system offered shall be upgradeable to the intelligent system if required in future. The OEM should have own intelligent solution, not should have any tie-up with third party (OEM Should give written deceleration).
ITEM WISE SPECIFICATION	
B	Category 6 UTP Roll of 305 Mtrs (LSZH)
	Quantity-12 Box
1	Category 6 Unshielded Twisted Pair 100 Ohm LSZH Cable (305 Mtrs in Reel)
2	Should be 4 pair, 23 AWG and CM Rated
4	Cable Should Have Internal cross separator
5	Sheath Type: LSZH 332.1,
	Nominal O.D: 6.1mm,
	NPV : 67%
6	D.C. Resistance: 9.38 ohm/100m, Propagation Delay: 537.6@100MHz
7	Frequency: Characterized up to 600Mhz
8	Should be ETL verified. Documents to be submitted.
9	Insertion Loss: @ 1MHz 2.0
	(dB/100m) @ 16MHz 7.6
	@ 100MHz 19.8
	@ 250MHz 32.8
	PS NEXT: @ 1MHz 72.3
	@ 16MHz 54.3
	@ 100MHz 42.3
@ 250MHz 36.3	
10	Applicable Standards: EN 50173 2nd Edition, ISO/IEC 11801 2nd Edition, EIA/TIA 568B.2.1
11	Fire Propagation Test: UL 1581 VW1, IEC 60332.1, EN0256-2-1
C	CAT6 24 PORT JACK PANEL Loaded
	Quantity-7 Nos
1	Should Be made of cold rolled steel
2	Should conform to TIA / EIA 568-C.2 Component Compliant
3	Should terminate 24 UTP CAT 6 (4 pair) Cables
4	Ports should be with individual spring loaded shuttered jack and individual replaceable
5	Should confirm to EIA/TIA 568A wiring Pattern
6	Should have labelling strips for identification.
7	Should have integral cable management shelf.
8	Commercial Standards:
	TIA/EIA-568-B.2-1 Component Compliant
	FCC Subpart F 68.5 Compliant
	IEC-603-7 Compliant
	ISO 11801 Class E Compliant
	ETL Verified for Category 6 Component Compliance

D	CAT6 A 24 PORT JACK PANEL Loaded
	Quantity-2 Nos
	Min. Required Specification
4.1	Be made of robust sheet metal as CRS (Cold Rolled Steel)
4.2	Have port identification numbers on the front of the panel.
4.3	Should have self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.
4.4	Each port / jack on the panel should be individually removable on field from the panel.
4.5	Should have integrated rear cable management shelf.
4.6	Should have shutter on the jack panel port for dust free & 100% mating of patch cords.
4.7	Should have separate provision of grounding
4.8	Specification of the jacks is same as above for individual I/Os
E	CAT6 PATCH CORDS
	1mtr (Purple Color) Quantity-75 Nos
1	Should be 4 Pairs 24 AWG copper cables.
2	The Outer Jacket should be Low Smoke Zero Halogen.
3	24 AWG stranded bare copper
4	Should minimum comply with proposed ANSI/TIA/EIA-568-C.2
5	Should Have cross separator
6	Commercial Standards
	ISO/IEC 11801:2002/Amd 2:2010 Cat 6-, TIA-568-C.2 Cat 6
7	Fire Propagation Tests: LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034
F	Casing/Capping/PVC Pipe/Trunking & Installation Charges (Per Meter)
	Installation of Network Rack at Server Room

Buy Back Items

SI No	ITEM	Qty
1	LG DVR (4 channel)	03 Nos
2	LG Dome Camera	10 Nos
3	Bullet Camera	01 Nos

SCHEDULE "C" DELIVERY DESTINATIONS

Sl. No	Item	Qty	Unit	Delivery Destination/Consignee
1	CCTV camera on buy back mode	No.		ORSAC, Bhubaneswar
2	Wi-Fi system	No.		
	All materials mentioned above with 5 years comprehensive warranty			

Accepted the above-mentioned conditions under schedule C of the tender for our item of supply.

Signature of Tenderer

Name:

Address:

SCHEDULE (D) – Bid Form

To

The Chief Executive
Odisha Space Applications Centre
Bhubaneswar

Sir,

I/ we have gone through the Tender Notice relating to supply, installation & commissioning of CCTV camera on buy back mode and Wi-Fi system with 5 years warranty at Odisha Space Applications Centre (ORSAC) and the schedule (A), (B), (C), (D) and (E) of Tender document.

A sum of Rs. _____ (Rupees _____)
only is hereby tendered in shape of _____ duly
pledged as Earnest Money Deposit (EMD). I / we also agree that an amount
of ten percent shall be deducted from my bill towards performance security.

I/ We agree the ORSAC shall be at liberty to forfeit the EMD and
performance security as per conditions of the contract in case of defaults on
my/ our part in fulfilling contractual obligations.

I/We have gone through all terms and conditions stated in the Tender
documents and agree to all the terms and conditions.

(Signature of Tenderer)

Date:

Name:

Address:

D) Old CCTV camera buy back Value							
LG DVR (4 channel)	03 Nos						
LG Dome Camera	10 Nos						
Bullet Camera	01 Nos						
Grand Total (A + B - D)							

@ Please refer to paragraphs-3 of schedule A

* Specify tax components included in unit price

** Mention installation & commissioning charges if any

(Signature of Tenderer)

Name:

Address: