



सरदार वल्लभभाई पटेल राष्ट्रीय पुलिस अकादमी  
SARDAR VALLABHBHAI PATEL NATIONAL POLICE ACADEMY  
(भारत सरकार : गृह मंत्रालय)  
(Government of India : Ministry of Home Affairs)  
हैदराबाद - 500 052  
Hyderabad - 500 052

**OPEN TENDER NO : 26011/11/2017-18/HS.OM(i)**

**IMPLEMENTATION OF SECURITY SURVEILLANCE IN PERIMETER AREAS  
OF SARDAR VALLABHBHAI PATEL, NATIONAL POLICE ACADEMY,  
HYDERABAD**

Date of Tender Enquiry : 11-10-2017

Closing date & time of submitting bids : 01-11-2017 at 1700 Hrs.



Website: <http://www.eprocure.gov.in>

**सरदार वल्लभभाई पटेल राष्ट्रीय पुलिस अकादमी**  
**SARDAR VALLABHBHAI PATEL NATIONAL POLICE ACADEMY**  
**(भारत सरकार : गृह मंत्रालय)**  
(Government of India : Ministry of Home Affairs)  
**हैदराबाद - 500 052 Hyderabad - 500 052**

**OPEN TENDER**  
**(e-Tender)**

1. SVP National Police Academy, Shivrampally, Hyderabad, invites **e-bids** under two-bid system from reputed firms for implementation of Security Surveillance cameras with three years comprehensive onsite warranty in Perimeter areas of the Academy. The technical specifications are enclosed herewith.
2. Salient features of the tender enquiry are as follows:-

a)	Tender No.	26011/11/2017-18/HS.OM(i)
b)	Description of stores	Implementation of Security Surveillance Cameras with 3 years comprehensive onsite warranty in Perimeter areas of the Academy
c)	Type of Tender	Open Tender
d)	Bid System	Two Bid System <b>(two cover Technical Bid &amp; financial Bid)</b>
e)	Earnest Money Deposit	Demand draft for Rs.1,00,000/- (Rupees One lakh only) drawn from any of the Commercial Banks in favour of the 'The Director, S.V.P National Police Academy, Hyderabad.
f)	Delivery schedule/ completion period	Delivery/ implementation should be completed within 90 days from the date of work order.
g)	Terms of Delivery	Free on Rail/ Road (F.O.R) Destination, SVP NPA Hyderabad.
h)	Bid validity	Bid should be valid for <b>180 days</b> from the date of opening of bid.
(i)	Address of correspondence	The Administrative Officer (Admn) SVP National Police Academy, Shivrampally, Hyderabad, Telangana - 500052
(j)	Warranty	Three years comprehensive onsite warranty support.

3. Important dates related to this tender are furnished below for information: -

S.No.	Particulars	Date	Time
1.	Date of online publication of tender	11-10-2017	1000
2.	Starting date for downloading Tender document	11-10-2017	1100
3.	Bid submission starting date	11-10-2017	1200
4.	Bid submission closing date	01-11-2017	1700
5.	Closing date & time for submission of original copies of EMD	01-11-2017	1700
6.	Opening of technical bids.	02-11-2017	1700

(Contd. 2)

4. Interested manufacturers/ authorised dealers/ stockists/ suppliers dealing with above items can download the tender document from CPP Portal ([www.eprocure.gov.in](http://www.eprocure.gov.in)) and bid can only be submitted through the same website. **Bid submitted other than CPP Portal will not be accepted.** The Eligible bidders should have the valid digital signature certificate (DSC) issued from any agency authorised by Controller of Certifying Authority (CCA), Govt. of India.

5. The bids are invited online under two cover system (Technical bid (Cover 1) and price bid/ bill of quantity (BOQ) (Cover 2)) from eligible bidders.

6. Bidders can access and download the tender documents from CPP Portal and can fill them with all relevant information and submit the completed tender document online on the website: <http://www.eprocure.gov.in>. The downloading of tender documents shall be carried out strictly as provided on the website. No editing, addition, deletion of matter shall be permitted. If such action is observed at any stage, such tenders are liable for outright rejection.

7. Tender shall be submitted online only at CPPP website. Bidders are advised to refer the Bidders manual kit for e-submission of the bids online through the Central Public procurement portal available at the website: <http://www.eprocure.gov.in>. Aspiring Bidders/ Suppliers who have not enrolled/ registered in e-procurement should enrol/register before participating through the website <http://www.eprocure.gov.in>. The portal enrolment is free of cost.

8. All the documents as per tender requirement should be uploaded online and further, no documents will be accepted offline. However, Demand Draft (EMD – Earnest money deposit) hard copy should be sent to SVP National Police Academy before the due date of opening. Bidders who are not submitting any of the required documents online will summarily be rejected.

9. The details of the Tender document and EMD should be filled and uploaded online. Earnest Money Deposit (EMD) for **Rs.1,00,000/- (Rupees One lakh only)** (Refundable) should be deposited in form of Crossed Demand draft Drawn on any nationalized bank in favour of Director, SVP National Police Academy, payable at SBH, Shivarampally, Hyderabad. **Bids without EMD will not be considered.** Tender Reference Number or details should be mentioned on the backside of the original crossed Demand Draft and the same should be sent to SVP National Policy Academy, Hyderabad before due date of opening of the tender.

### **Terms and Conditions**

10. The TIA (Tender inviting authority) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders at the eleventh hour. For any queries regarding e-tendering process, the bidders are requested to contact over phone : 08826246593 ,07799289911 or send a mail over to [cppp-nic@nic.in](mailto:cppp-nic@nic.in).

11. Technical bid should include information related to all specifications sought. It should also contain company brochures of all equipments and should be accompanied by relevant technical documents issued by the manufacturer in support of specifications asked for.

12. Delivery/installation/ providing services is to be started within 90 days from the date of Work Order failing which, penalty @ 0.5% of the Work Order value will be recovered for every week period delay from the final payment. Further in case of inordinate delay of 120 days from the date of Work Order, this work order stands cancelled without any further notice and you will also be liable to be blacklisted.

13. The date of placing the order shall be the date of dispatch of order of the delivery there of to the tenderer, when such order is being delivered through some person.

14. If the tenderer fails to provide service within stipulated delivery period then the work order will stand cancelled and the security deposits shall be forfeited. In addition, the tenderer may be blacklisted for a definite period to be decided by SVP NPA, during which no supply order would be given to the blacklisted tenderer. In this case, order for the same service (s) will be awarded to the L2 tenderer based on the same documentation & processes.

15. After the expiry of the stipulated delivery period, which includes extension period if any, no item shall be accepted by SVP NPA. If the tenderer applies for the extension of the delivery period, the extension can be granted on valid grounds only once and up to a maximum of 30 days.

16. No interest will be allowed on the Earnest Money Deposit or security deposits so remitted and no claim shall be entertained in respect of the same. It may specifically be noted that ordinarily payment will be made only after full supplies are completed as per orders and that no advance payment can be arranged.

17. The tenderer shall be responsible for the proper packing of goods so as to avoid damages under normal conditions of transport by rail, road or air and for delivery of the material in good conditions to the consignee at destination. In the event of any loss, damage breakage, leakage or any shortage tenderer shall be liable to make good such loss or shortage.

18. **Performance Security Clause.** The successful bidder shall have to deposit a performance security of 5% of the contract value of the work order rounded up to next hundred in the form of account payee demand draft/ bank guarantee from a nationalized/ scheduled commercial bank in favour of the Director, SVP NPA Hyderabad payable at SBH Shivrampally, Hyderabad within 15 days of the placement of work order for due performance as per the provisions contained in GFR – 158. Failure on the part of the firm to deposit the performance security within stipulated time the purchaser reserves the right to cancel the Work Order. Performance Security submitted by the bidder will remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier. No interest will be payable for "Performance Security."

19. **Warranty.** Three years comprehensive onsite warranty support.
20. **Bid Validity.** The Bid/ Tender submitted shall necessarily remain valid for 180 days. If any bidder withdraws his tender before the said period, SVP NPA shall without prejudice to any other right or remedy, be at liberty to forfeit the bid security submitted alongwith the bid.
21. **Terms of Payment.** Payments would be made on a successful implementation of the project and after submission of the bill in triplicate. Payment would be made after deducting the penalty, if any. No advance payment or payment against proforma invoice will be made.
22. Prices shall be quoted in Indian rupees only.
23. The prices once accepted by the Purchaser shall remain valid till the successful execution of the complete order to the satisfaction of the Academy. The Academy shall not entertain any increase in the prices during the period. In the event there is a reduction or increase in Government levy/ duties during the period of execution of the order, the rates shall be suitably adjusted with effect from the date notifying the said reduction or increase in the Government levy/ excise duty. However, the Purchaser is not liable to any claim from the Supplier on account of fresh imposition and/ or increase of Excise Duty, Customs Duty, Sales Tax etc. on raw materials and/ or components used directly in the manufacture of contracted goods taking place during the pendency of contract.
24. The bidder should have their own full-fledged service centre with all necessary tool kits and well qualified engineers and any service call should be responded without failure during warranty period. Bidders should submit necessary supporting documents in proof of the same.
25. The Director, SVP National Police Academy reserves the right to order full or part thereof of the items enclosed or accept/ reject any or all the bids without assigning any reason.
26. The turnover of the bidding company must be minimum Rs.5 crores in the last financial year.
27. Following scanned documents in **pdf file** format must be enclosed in separate covers duly sealed and stamped.

**First Cover (In pdf): -**

- (a) Firm Registration Certificate as per the Companies Act of India.
- (b) ISO Certification.
- (c) Banker details.

- (d) Details of previous experience/ supply.
- (e) Provide details of other institutions in which similar cameras were installed in last three years.
- (f) Authorization certificate from OEM of all products proposed & Vendor should have presence in Hyderabad/ Secunderabad.
- (g) Sales Tax clearance & VAT Registration.
- (h) Income Tax Returns.
- (i) Details of last year turnover.
- (j) Scanned copy of EMD Demand Draft drawn in favour of 'The Director, S.V.P. National Police Academy, Hyderabad' submitted in portal followed by original copy before closing of tender date at the address of the Administrative Officer (Admn.), SVP National Police Academy, Shivarampally, Hyderabad. Offers received without the prescribed EMD will be rejected summarily.
- (k) Technical compliance statement should be submitted in clear statement form and all brochures relating to the product quoted should be submitted. Bidders with no compliance statement will be summarily rejected.

**Second Cover: -**

- (a) Financial bid (In excel file like BoQ): - The rates i.e. unit rate of each item and total amount including all taxes, labour charges, if any, are to be quoted explicitly both in words and figures. The Price Bid/ BOQ template must not be modified or replaced by the bidder; else the bid submitted is liable to be rejected for this tender.

**28. Taxes and duties.**

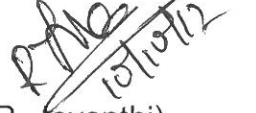
- (a) Vendor shall be entirely responsible for all taxes, duties, license fees etc. incurred until delivery of the contracted services to the Academy.
- (b) No bid will be considered unless and until all the pages / documents comprising the bid are properly numbered, signed and stamped by the person/s authorized to do so.

29. Right to cancel the order. The Director, SVP National Police Academy reserves the right to cancel the purchase order without any financial repercussion on either side and without seeking the consent of the supplier at any stage of purchase process. No further correspondence in this matter will be entertained.



30. **Demonstration of Offered Project.** The bidders should provide demonstration of project offered, in case the TPC so desires. Failure to offer demonstration shall entail rejection of bid forthwith.

Yours faithfully,



(R. Jayanthi)  
Administrative Officer (Admn.)  
SVP NPA Hyderabad

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Gram: 'POLACADEMY' e-mail:administrator@svnpa.gov.in Tel: 91-040-24015151 to  
24015158 Fax: 91-040-24015179



### Technical Specifications for Perimeter Surveillance of Cameras

The Academy proposes to secure its perimeter by adding additional surveillance cameras to monitor activities along the perimeter. At present the Academy has implemented the existing solution with Sony based surveillance solution. In this connection it is proposed to place the following quantities of cameras which includes Fixed, IR Fixed and PTZ along the perimeter and will be connected at the central control room for monitoring the activities. The proposed solution should offer better video analytics for object detection and alarming at the central control room. As part of the solution besides placing the cameras some portions of the perimeter need be connected over OFC. For erecting the cameras, 25 feet poles of 31 no.s of good quality need to be erected at identified locations. All the proposed cameras need to be connected over PoE for proper power supply. To record the activities of the cameras, necessary software with good analytics should be provided. All the camera points should be connected over UPS. There are 10 identified locations from where the existing cameras need to be shifted to the desired location, which will be indicated for the successful bidder. The following are the broad requirements( Cameras should be of Bosch / Sony / Panasonic(WUB-Series) / Samsung / Tyco brand only). **The complete installation its components will carry a 3 year onsite warranty/support. Interested vendor should visit the site and survey the requirement and propose.**

The below specifications are **indicative** only. Products with better performance with better technical specification will also be accepted on successful demonstration. The Academy reserves the right to reject any product / alter specification in the interest of the Academy requirements. The decision of the chairman of the tender board is final.

S/no	Description	Qty
1	Outdoor Night Vision IR Bullet Fixed High Definition PoE based Network camera	27
2	Day / Night, Network Pan/Tilt/Zoom PoE based network camera with IP66 weather proof housing and wall mounted bracket	7
3	Indoor 720/30fps Fixed PoE based Network Camera	5
4	HPoE adapters of TPlink or equivalent brand	39
5	Suitable video recording software of 16 Channel having Camera analytic features	3
6	MS Poles of 25 feet length for Camera Installation	31
7	OFC of Systimax/Schenider	2Kms
8	Required Network accessories such as CAT 6 cables, connectors, network boxes, LIUs', 8 port PoE switches/HpoE adapters, Media converters, patch cords and other network integration components as per the site requirement	As per the site requirement
9	0.6 KVA UPS of APC or equivalent brand	21
10	Relocation of existing Cameras	10

**The details specification of cameras are given below :**



**Specifications for FIXED IR BULLET OUTDOOR CAMERA (27 NOs.):**

<b>TECHNICAL PARAMETER</b>	<b>SPECIFICATION</b>	<b>COMPLAINC E (YES/NO)</b>
Image Sensor	1/2.8-type progressive scan Exmor CMOS or better	
Number of Effective Pixels	<b>2.0</b> Megapixels or better	
Signal System	NTSC/PAL (switchable)	
Sync System	Internal synchronization or equivalent	
Minimum Illumination (50 IRE)	Color: 0.05 lx (F1.2, View-DR OFF, VE OFF, AGC ON, 1/30 s, 30 fps) or better ; B/W: 0 lx (IR illuminator ON) or better	
Minimum Illumination (30 IRE)	Color: 0.03 lx (F1.2, View-DR OFF, VE OFF, AGC ON 1/30 s, 30 fps) or better B/W: 0 lx (IR illuminator ON) or better	
Dynamic Range	Equivalent to 120 dB with View-DR technology or better	
S/N Ratio (Gain 0 dB)	More than 50 dB or better	
Gain	Auto	
Shutter Speed	1/1 s to 1/10,000 s or better	
Exposure Control	Exposure compensation, AGC, Shutter speed, Iris	
White Balance	ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual	
lens	Built-in varifocal lens or better	
Easy Zoom	Yes	
Zoom Ratio	Optical zoom 3x, Digital zoom 4x, Total zoom 12x or better	
Easy Focus for Setup	Yes	
Horizontal Viewing Angle	92.9° or better	
Vertical Viewing Angle	73.1° or better	
Focal Length	f = 2.8 mm to 12.0 mm or better	
F-Number	F1.2 (Wide) to F2.1 (Tele)	

Minimum Object Distance	300 mm or better	
IR Illuminator	Yes (Wave length: 850 nm [typical], IR LED: 10 pieces) or better	
IR Working Distance	25 m (82 feet) (50 IRE) or better	
<b>Camera Features</b>		
Day/Night	True D/N	
Wide-D	View-DR	
Tone Correction	Visibility Enhancer (VE)	
Noise Reduction	XDNR /super noise reduction or equivalent	
Image Stabilizer	Yes	
Picture Mode	Yes	
Privacy Masking (Number)	20 or better	
Privacy Masking (Shape)	Quadrangle formed by any four corner points	
Privacy Masking (Color/Effect)	Opaque: 14 colors (Black, White, Red, Green, Blue, Cyan, Yellow, Magenta, Gray (6 scales)), Mosaic	
Ingress Protection	IP66	
Superimpose Number	3 independent positions for characters (Codec, Date & Time, Event, Text (max. 64 characters)), 1 independent position for logo marks	
Superimpose Language	English, Hindi	
Menu Language	English, hindi	
Smartphone viewer	Yes	
<b>Video</b>		
Resolution	1280 x 1024, 1280 x 960, 1024 x 768, 1280 x 720, 800 x 600 or better	
	720 x 576, 720 x 480, 704 x 576, 640 x 480, 352 x 288, 320 x 240	

	(H.264, JPEG)	
Compression Format	H.264 (High/Main/Baseline Profile), JPEG	
Maximum Frame Rate	H.264: 30 fps (1280 x 1024)	
	JPEG: 30 fps (1280 x 1024)	
Bitrate Compression Mode	CBR/VBR (selectable)	
Range of Bit Rate Setting	64 Kbps to 32 Mbps	
Solid PTZ	Yes	
Adaptive Rate Control	H.264	
Bandwidth Control	JPEG	
Multi streaming Capability	Triple streaming	
Number of Clients	10 or better	
<b>Intelligent Video/Audio Analytics</b>		
Analytics Architecture	DEPA Advanced or equivalent	
Intelligent Motion Detection	Yes	
Face Detection	Yes	
Tamper Alarm	Yes	
Scene Analytics	Passing, Intrusion, Left Object Detection, Removed Object Detection	
<b>System Requirement</b>		
Operating System	Windows 7/ windows 10 (32/64 bit) , Professional Edition	
Processor	Intel Corei7 2.8 GHz or higher	
Memory	2 GB or more	
Web Browser	Microsoft Internet Explorer Ver. 7.0, Ver. 8.0, Ver. 9.0, Ver. 10.0, Ver. 11.0	

	Firefox Ver. 19.02 (plug-in free viewer only)	
	Safari Ver. 5.1 (plug-in free viewer only)	
	Google Chrome Ver. 25.0 (plug-in free viewer only)	
<b>Network</b>		
Protocols	IPv4, TCP, UDP, ARP, ICMP, IGMP*, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, RTSP over HTTP, SMTP, IPv6, HTTPS, FTP (client only), SNMP (v1, v2c, v3), SSL	
QoS	DSCP	
Multicast Streaming Support	Yes	
ONVIF Conformance	Yes	
Authentication	IEEE 802.1X	
<b>Interface</b>		
Analog Monitor Output for Setup	Phono jack x1	
Network Port	10BASE-T/100BASE-TX (RJ-45)	
<b>General</b>		
Power Requirements	IEEE 802.3af compliant (PoE system)	
Power Consumption	Max. 10.0 W (tentative, IEEE 802.3af-compliant PoE system)	
Operating Temperature	-30°C to +55°C (-22°F to +122°F)	
Cold Start Temperature	-20°C (-4°F)	
Storage Temperature	-20°C to +60°C (-4°F to +140°F)	
Operating Humidity	20% to 90% (no condensation)	
Storage Humidity	20% to 95% (no condensation)	
Built-in Heater	Yes	
External Material	Front Cover: PC, Rear Case: ADC12, Arm/Stand: ADC12, Lens Cover: PC, Sunshield: PC	
Fire Retardant	UL2044	

Safety Regulations	JATE Technical Standard (LAN), UL, VCCI (Class A), FCC (Class A), IC (Class A), Emission: EN55022 (Class A), KCC, EMC,	
Supplied Accessories	Software CD, tools, Installation manual, Safety regulations	

**Specification for FIXED CAMERA (5 nos)**

<b>TECHNICAL PARAMETER</b>	<b>SPECIFICATION</b>	<b>COMPLIANCE (YES/NO)</b>
Image Sensor	1/4-type progressive scan Exmor CMOS sensor or better	
Number of Effective Pixels	Approx. 2 Megapixels or better	
Minimum Illumination (50 IRE)	Color: 1.0 lx (F2.0, VE OFF, AGC MAX, 1/30 s, 30 fps)	
Minimum Illumination (30 IRE)	Color: 0.5 lx (F2.0, VE OFF, AGC MAX, 1/30 s, 30 fps)	
Dynamic Range	More than 60 dB	
Gain	Auto	
Shutter Speed	1/1 s to 1/10,000 s or better	
Exposure Control	Exposure compensation, AGC, Shutter speed	
White Balance	ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual	
Leis	Fixed lens	
Horizontal Viewing Angle	120° or better	
Vertical Viewing Angle	64.0° or better	
Focal Length	f = 1.83 mm or better	
F-Number	F2.0 or better	
Minimum Object Distance	500 mm or better	
White-light LED Illuminator	Yes	
LED Working Distance	3 m	
Wide-D	View-DR® LT-C technology or equivalent	
Tone Correction	Visibility Enhancer (VE)	
Noise Reduction	XDNR technology or equivalent	
Image Stabilizer	Yes	
Picture Mode	Yes	

Privacy Masking (number)	20	
Privacy Masking (shape)	Quadrangle formed by any four corner points	
Privacy Masking (color/effect)	Opaque 14 colors (Black, White, Red, Green, Blue, Cyan, Yellow, Magenta, Gray (6 scales)), Mosaic	
Edge Storage	Yes	
Memory Size for Pre/Post Buffer	Approx. 8 MB	
Compatibility with Cloud Service	Yes	
Voice Alert	Yes	
Superimpose Number	3 independent positions for characters (Codec, Date & Time, Event, Text (Max. 64 characters)), 1 independent position for logo Marks	
Superimpose Language	English	
Menu Language	English, Japanese, Chinese (simplified), Chinese (traditional), French, Spanish, German, Italian, Korean, Portuguese, Russian, Arabic, Hindi, Vietnamese, Thai	
Smartphone viewer	Yes	
Resolution	1280 x 720, 1024 x 576, 720 x 576 720 x 480, 704 x 576, 640 x 480, 640 x 360, 352 x 288, 320 x 180, (H.264, JPEG) or better	
Compression Format	H.264 (High/Main/Baseline Profile), JPEG	
Maximum Frame Rate	H.264: 30 fps (1280 x 720), JPEG: 30 fps (1280 x 720)	
Bitrate Compression Mode	CBR/VBR (selectable)	
Range of Bitrate Setting	64 Kbps to 8 Mbps	
Solid PTZ	Yes	
Bandwidth Control	JPEG	
Multi Streaming Capability	Triple streaming	
Number of Clients	5 or better	
Analytics Architecture	DEPA Advanced technology or equivalent	
Intelligent Motion Detection	Yes	
Face Detection	Yes	
Tamper Alarm	Yes	
Scene Analytics	Passing, Intrusion, Left Object Detection, Removed Object Detection	
Audio		



Compression Format	G.711/G.726/AAC (16 kHz, 48 kHz)	
<b>System Requirements</b>		
Operating System	Windows® XP® (32 bit) Professional Edition	
	Windows® Vista® (32 bit) Ultimate, Business Edition	
	Windows® 7 (32/64 bit) Ultimate, Professional Edition	
	Windows® 8 Pro (32/64 bit)	
Processor	Intel Core2 CPU 6420 2.13 GHz or higher	
Memory	2 GB or more	
Web Browser	Microsoft® Internet Explorer® Ver. 7.0, Ver. 8.0, Ver. 9.0, Ver 10.0	
	Firefox® Ver. 19.02 (plug-in free viewer only)	
	Safari® Ver. 5.1 (plug-in free viewer only)	
	Google Chrome® Ver. 25.0 (plug-in free viewer only)	
Protocols	IPv4, TCP, UDP, ARP, ICMP, IGMP*, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, RTSP over HTTP, SMTP, IPv6, HTTPS, SNMP (v1, v2c, v3), SSL	
QoS	DSCP	
Multicast Streaming Support	Yes	
ONVIF Conformance	Profile S	
Wireless Network	No	
Wi-Fi Certified	No	
Wi-Fi Protected Setup	No	
Authentication	IEEE802.1X	
<b>Interface</b>		
Microphone Input	Built-in microphone	
Line Output	Built-in speaker	
Network Port	10BASE-T/100BASE-TX (RJ-45)	
Card Slots	micro SD	
Confirmed SD Card Type	SDHC	
<b>General</b>		
Power Requirements	IEEE802.3af compliant (PoE system)	
Power Consumption	5.0 W max.	
Operating Temperature	0°C to 55°C or better	
Storage Temperature	-4°F to +140°F (-20°C to +60°C)	
Operating Humidity	20% to 80% or better	
Storage Humidity	20% to 95% or better	
External Material	PC (polycarbonate)	

External Color	White	
Fire Retardant	UL94HB or higher	
Safety Regulations	UL2044, IEC60950-1, GB4943.1, VCCI Class B,	
	FCC Class B, IC Class B, AS/NZS CISPR22 (Class B), RCM, EMC-TR (CU-TR), MSIP	

**Specifications for PTZ OUTDOOR CAMERA(7 nos):**

<b>TECHNICAL PARAMETER</b>	<b>SPECIFICATION</b>	<b>COMPLAIN CE (YES/NO)</b>
Image device	1/4-type EXview HD CCD/CMOS	
Number of effective pixels	Approx. 2.0 Megapixel or better	
Minimum Illumination	Color: 1.4lx (F1.6, shutter 1/60sec, AGC ON, : Color: 1.4lx (F1.6, shutter 1/50sec, AGC ON 50IRE <b>or better</b>	
	B/W: 0.15lx (F1.6, shutter 1/60sec, AGC ON, : B/W: 0.15lx (F1.6, shutter 1/50sec, AGC ON Night Mode, 50IRE <b>or better</b>	
	Color: 0.9lx (F1.6, shutter 1/60sec, AGC ON, : Color: 0.9lx (F1.6, shutter 1/50sec, AGC ON, 30IRE	
	B/W: 0.1lx (F1.6, shutter 1/60sec, AGC ON, : B/W: 0.1lx (F1.6, shutter 1/50sec, AGC ON, Night Mode, 30IRE or better	
Signal system	NTSC standard PAL standard	
Electronic shutter speed	1/1 to 1/10,000 s or better	
Dynamic range	92 dB by DynaView technology or equivalent	
Auto gain control	Auto/Manual (-3 to 28 dB) or better	
Exposure control	Full auto, Shutter priority, Iris priority, Manual	
White balance mode	Auto, Advanced Auto, ATW, Indoor, Outdoor, One-push, Manual, Sodium vapour lamp	
Lens type	Auto-focus Zoom Lens	
Zoom ratio	Optical zoom 32x, Digital zoom 12x, Total zoom 32x or better	
Horizontal viewing angle	57.8 to 111.7 degrees	
Focal length	f=3.4 to 122.4 mm	
F-number	F1.6 to F4.5	
Minimum object distance	10mm (wide) to 1500mm or better	
Pan angle	340 degrees or better	
Pan Speed	300 degrees/s or better	
Tilt angle	105 degrees or better	
Tilt speed	300 degrees/s (max) or better	
Preset position	256 positions	
Tour	5 or better	
<b>Camera Features</b>		
Day/Night	Yes (True D/N)	

Wide-D	Yes (DynaView)	
Noise Reduction	Yes	
<b>Image</b>		
Codec image size (H x V)	704x576, 720x480, 640x480, 384x288, 320x240 720x576	
Video compression format	H.264, MPEG-4, JPEG	
Codec streaming capability	Dual streaming	
Maximum frame rate	30 fps (H.264/MPEG-4/JPEG) 25 fps (H.264/MPEG-4/JPEG)	
<b>Audio</b>		
Audio compression	G.711/G.726	
<b>Scene Analytics</b>		
Intelligent motion detection	Yes	
<b>Network</b>		
Protocols	IPv4, IPv6, TCP, UDP, ARP, ICMP, IGMP, HTTP, HTTPS, FTP (client/server), SMTP, DHCP, DNS, NTP, RTP/RTCP, RTSP, SNMP(MIB-2)	
ONVIF conformance	Yes (Ver. 1.02)	
Number of clients	5	
Authentication	IEEE802.1X	
Interface		
Ethernet	10BASE-T / 100BASE-TX (RJ-45)	
Card slots	SD memory card x 1 (Compatible with the SD/SDHC standards)	
Sensor input	x2	
Alarm output	x1	
External microphone input	Mini-jack (monaural)	
Audio line output	Mini-jack (monaural), Max output level: 1 Vrms	
<b>General</b>		
Mass	1.7 kg (3 lb 12 oz) (including ceiling bracket)	
Dimensions (ø x H mm)	ø147.4 x 190.9 mm (5 7/8 x 7 5/8 inches)	
Power requirements	HPoE (IEEE802.3at compliant) , AC24V	
Power consumption	Approx. 25W	
Operating temperature	-5 to +55 °C (23 to 122°F) or better	
Starting temperature	0 to 55 °C (32 to 122°F) or better	
Storage temperature	-20 to +60 °C (-4 to +140°F) or better	
Safety regulation	UL, FCC 15B Class A, IC Class A, VCCI Class A, C-Tick Class A	
<b>System Requirements</b>		
Operating system	Microsoft Windows 7 (32/64bit) - Ultimate, Professional	
Processor	Intel Core2 Duo 1.8 GHz or higher	
	Intel Pentium4 2.4GHz or higher	

Memory	2 GB or more	
Web browser	Microsoft Internet Explorer Ver. 6.0, Ver. 7.0, Ver. 8.0, Ver. 9.0	
	Firefox Ver.3.5 (Plug-in free viewer only)	
	Safari Ver.4.0 (Plug-in free viewer only)	
	Google Chrome Ver.4.0 (Plug-in free viewer only)	
<b>Supplied Accessories</b>		
	CD-ROM (User's guide, supplied programs), Installation manual, Ceiling bracket, Screws(2),	
	Template, 24V AC Connector, I/O Connector	

**Specifications for RECORDING & VIDEO MANAGEMENT SOFTWARE:**

**The Academy will provide 3 systems with LED 42" monitors considering 16 cameras per system**

The software should support:

- Continuous / scheduled recording with mosaic viewing
- External data storage at defined path / location
- To create ip/name based folders to store data of that respective camera
- Different parameter based event searches
- PTZ control of the camera
- A minimum of 10 Client access should supported with user level authentication
- To generate email as and when an alert occurs
- To export the recorded video files into desired standard file formats
- Application Programming Interface for further customized application development

<b>TECHNICAL PARAMETER</b>	<b>SPECIFICATION</b>	<b>COMPLIANCE (YES/NO)</b>
Video compression	H.264/MPEG-4/JPEG	
Audio compression	G.711/G.726	
Number of clients to be connected	10	
Number of cameras to be supported	16	
Number of audio to be supported	16	
System Requirements		
Operating system	Windows 7 Professional, Windows 7 Enterprise, Windows® Server 2003 Standard Edition SP2(32bit), Windows® Server 2008 Standard Edition SP2 (32 bit), Windows Server 2008 R2 Standard	
CPU (recommendation)	Intel Core i7 Processor 2.8GHz or higher	
Main memory (recommendation)	4 GB or more	
HDD	2 GB Spare	
Video card	1024 x 768, 16/24 bit color	
Network interface card (NIC)	100BASE-TX or higher	
Display (Resolution)	1024 x 768 or higher	

**BOQ**

Slno	Description	Qty	Make and model	Total qty price	Applicable tax	Total cost
1	Outdoor Night Vision IR Bullet Fixed High Definition PoE based Network camera	27				
2	Day / Night, Network Pan/Tilt/Zoom PoE based network camera with IP66 weather proof housing and wall mounted bracket	7				
3	Indoor 720/30fps Fixed PoE based Network Camera	5				
4	HPoE adapters of TPLink or equivalent brand	39				
5	Suitable video recording software of 16 Channel having Camera analytic features	3				
6	MS Poles of 25 feet length for Camera Installation	31				
7	OFC of Systimax / Schenider	2Kms				
8	Required Network accessories such as CAT 6 cables, connectors, network boxes, LIUs'8 port switches, patch cords and other network integration components as per the site requirement	As per the site requirement				
9	0.6 KVA UPS of APC or equivalent brand	21				
10	Relocation of existing Cameras	10				