

Re-Tender  
for  
Supply and Installation of  
**Closed Circuit Television (CCTV) Devices**  
at  
Indian Institute of Technology Jodhpur

NIT No. : IITJ/SPS/CSE/1/1(I)/2015-16/32  
NIT Issue Date : 26 August 2015  
Last Date of Submission : 07 September 2015 by 3:00 PM



॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

Indian Institute of Technology Jodhpur  
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# Notice Inviting Tender

Indian Institute of Technology (IIT), Jodhpur, Rajasthan (hereinafter referred to as the “Institute”) an Educational Institute of National Importance, invites sealed tenders for supply & installation of the following item at the Institute from the manufacturer or its authorized dealers. You are requested to quote your best offer along with the complete details of specifications, terms & conditions. The tender document can be downloaded from the Institute website at URL Link: <http://www.iitj.ac.in> or from Central Public Procurement Portal link: <http://www.eprocure.gov.in>.

S. No.	Item Description	Quantity
1.	As per Annexure – A & B	As per Annexure – A & B

Quotation should be sealed and superscribed with tender number and due date of submission and address to:

**“Officer-in-charge  
Office of Stores and Purchase  
IIT Jodhpur  
Old Residency Road, Ratanada  
Jodhpur – 342 011, Rajasthan”**

The sealed quotations should reach the Institute, latest by September 07, 2015 by 03:00 PM and it will be opened on same day at 04:00 PM in the Conference Room, Administrative Block of the Institute in the presence of the bidder(s) or their authorized representative(s), who will present at the scheduled date and time.

## **Terms & Conditions:**

1. **Earnest Money Deposit:** The bidder shall be required to submit the Earnest Money Deposit (EMD) for an amount of Rs.30,000/- (Rupees Thirty Thousand only) which is refundable and a non-refundable tender fee of Rs.500/- (Rupees Five Hundred only) by way of demand draft only. The demand drafts shall be drawn in favor of “Director, IIT Jodhpur” payable at Jodhpur.

The EMD of the successful bidder shall be returned after the completion of contract / order and for unsuccessful bidder(s) it would be returned after award of the contract. Bid(s) received without demand drafts of EMD and tender fees shall be liable for rejection.

The firms who are registered with National Small Industries Corporation (NSIC) / or Small Scale Industrial (SSI) are exempted to furnishing the EMD and tender fee.

2. **Rates:** Rates should be quoted on FOR destination at IIT Jodhpur, Old Residency Road, Ratanada, Jodhpur – 342011, Rajasthan on **DOOR Delivery Basis**, inclusive of all the charges, with breaks – ups as:
  - (i) Basic Cost.
  - (ii) VAT / CST as applicable.

(iii) Total Cost (F.O.R at IIT Jodhpur) as per Annexure-C

**Note:** Institute is registered with DSIR, Govt. of India (Custom Duty Notification No. 51/96- Custom dt: 23 July, 1996 and Central Excise Duty Notification No. 10/97- Central Excise dt: 1 March, 1997) and is therefore, exempted from Excise Duty and partial exempted from Custom Duty (CD applicable to IIT Jodhpur is 5.15%). Exemption certificate of the same shall be issued.

3. **Validity:** The quoted rates must be valid for period of 90 days from the date of closing of the tender. The overall offer for the assignment and bidder(s) quoted price shall remain unchanged during the period of validity. If the bidder quotes the validity shorter than the required period, the same will be treated as unresponsive and it may be rejected.

In case the tenderer withdraws, modifies or change his offer during the validity period, bid is liable to be rejected and the earnest money deposit shall be forfeited without assigning any reason thereof. The tenderer should also be ready to extend the validity, if required, without changing any terms, conditions etc. of their original tender.

4. **Warranty / Guarantee:** Bid must be quoted with **three (03) years** comprehensive on-site warranty / guarantee and it will be started from the date of the satisfactory installation / commissioning of goods, against the defect of any manufacturing, workmanship and poor quality of the components. And bidder should be atleast 02 (two) latest satisfactory installation reports. must be enclosed with the technical bid.
5. **Delivery & Installation:** All the goods ordered should be delivered & installed within 4 weeks from the date of issue of the purchase order. All the aspects of safe delivery, installation and commissioning shall be the exclusive responsibility of the supplier.

If the supplier fails to deliver, installation and commissioning of the goods on or before the stipulated date, then a penalty at the rate of 1% per week of the total order value shall be levied subject to maximum of 10% of the total order value.

6. **Performance Security:** After the award of work, the supplier shall be required to submit the performance security in the form of irrevocable bank guarantee in the prescribed format (Annexure-D) issued by any Nationalised/Scheduled Bank / or Fixed Deposit Receipt, for an amount equal to the 10% of order value and **it will be kept valid for a period of 60 days beyond the date of completion of warranty period. Warranty Period will be commenced from the date of the installation of the supplied item. Hence, be careful at the time of calculation of the validity date of Performance Bank Guarantee.**
7. **Payment Terms:** 90% payment against delivery and satisfactory installation, and balance 10% after the submission of Performance security. It is must to submit the Performance Security within one month after the delivery of the ordered material, otherwise the remaining 10% payment (equal to the amount of Performance Security) will be forfeited, due to noncompliance of tender Terms & Conditions.
8. Quantity may be varied (either increase or decrease).
9. Bidder shall submit a copy of the tender document and addenda thereto, if any, with each page of this document should be signed and stamped to confirm the acceptance of the entire terms & conditions as mentioned in the tender enquiry document with guaranty warranty undertaking latter.

10. Signed & stamped compliance sheet of the technical specification of the goods with technical printed literature must be enclosed with the bid.

11. The bidder must enclose a certificate from the parent comp any as being an authorized dealer / distributor of the quoted products. The bid received without such valid authorization certificates shall be rejected.

12. Applicable Law:

- The contract shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such Commercial dealings / processing.
- Any disputes are subject to exclusive jurisdiction of Competent Court and Forum in Jodhpur, Rajasthan, India only.
- The Arbitration shall be held in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the venue of arbitration shall be at Jodhpur. The decision of the Arbitrator shall be final and binding on both the parties.
- Force Majeure: Any delay due to Force Majeure will not be attributable to the supplier.

13. After due evaluation of the bid(s), the Institute will award the contract to the lowest evaluated responsive tenderer.

14. Conditional bid will be treated as unresponsive and it may be rejected.

15. The Institute reserves the right to accept in part or in full or reject any or more quotation(s) without assigning any reasons or cancel the tendering process and reject all quotations at any time prior to award of contract, without incurring any liability, whatsoever to the affected bidder or bidder(s).

## Annexure-A

### Supply and installation of Closed Circuit Television (CCTV) Devices

#### Quantity:

Sr. N	Camera Type	Quantity
1	Mini Dome Camera (POE)	11
2	IR Low Light Bullet Camera(POE)	4
3	IR Bullet Camera (POE)	9
4	IR PTZ camera (POE)	1
5	Virtual PTZ Camera 360 degree	1
6	RF 1 set (For 1 CCTV camera connection)	1
7	UTP Cable supply with laying	300 meters
8	7 Mtrs Pool	2
9	POE Injector	4
10	Software (License Free)	1

## Annexure – B

### Specifications:

<b>IR Bullet Camera Specification</b>			
S.No	Feature	Required Parameters	Compliance
1	LENS	f=3 ~ 9 mm, F 1.2 (wide), F 2.1 (tele)	
		Removable IR-cut filter for day & night function	
2	Field of View	85.7° ~ 31.46° (horizontal), 73.16° ~ 25.4° (vertical), 99.82° ~ 39.67° (diagonal)	
3	Shutter Time	1/5 ~ 1/25,000 sec.	
4	Image sensor	1/3" CMOS in 1280x800 Resolution	
5	Minimum Illumination	0.8 lux @ F1.2 ( Color )	
		0.001 lux @ F1.2 ( B/W )	
6	IR Illuminators	IR LED*12	
		Built-in IR illuminators, Effective up to 20 meters	
7	Video	Compression: H.264, MPEG-4 & MJPEG	
		Streaming: Simultaneous dual streams	
		H.264 streaming over UDP, TCP, HTTP or HTTPS, H.264/MPEG-4 multicast streaming	
		MPEG-4 streaming over UDP, TCP, HTTP or HTTPS	
		MJPEG streaming over HTTP or HTTPS	
		Supports activity adaptive streaming for dynamic frame rate control	
		Supports ePTZ for data efficiency, Supports 3GPP mobile surveillance	
		Frame rates: H.264: Up to 30 fps at 1280x800, Up to 30 fps at 1280x720	
		MPEG-4: Up to 25 fps at 1280x800, MJPEG: Up to 30 fps at 1280x800	
Focus Assist: Dynamic Range: 110dB			
8	Image Settings	Adjustable image size, quality, and bit rate	
		Time stamp and text caption overlay	
		Configurable brightness, contrast, saturation, sharpness, white balance and exposure control	
		AGC AWB AES	
		Automatic, manual or scheduled day/night mode	
		Supports privacy masks	
9	Audio	GSM-AMR speech encoding, bit rate: 4.75 kbps to 12.2 kbps	
		MPEG-4 AAC audio encoding, bit rate: 16 kbps to 128 kbps	
		G.711 audio encoding, bit rate: 64 kbps, $\mu$ -Law or A-Law	
		Interface:	
		External microphone input, Audio output	
		Supports two-way audio, Supports audio mute	

10	Networking	10/100 Mbps Ethernet, RJ-45 (POE Supported)	
		Protocols: IPv4, IPv6, TCP/IP, UDP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP v1/v2/v3 and 802.1X	
11	Intelligent Video	Triple-window video motion detection	
		3 D/I & 1 D/O for external sensor and alarm	
		Event notification using HTTP, SMTP, FTP	
		Local recording of MP4 files	
		Tamper Detection	
12	On-board Storage	MicroSD/SDHC card slot	
		Stores snapshots and video clips	
13	Security	Multi-level user access with password protection	
		IP address filtering, HTTPS encrypted data transmission	
		802.1X port-based authentication for network protection	
14	Users	Live viewing for up to 10 clients	
15	LED Indicator	System power and status indicator	
		System activity and network link indicator	
16	Power	12V DC, 24V AC	
		802.3af Power-over-Ethernet (Class 3)	
17	Housing	Weather-proof IP67-rated housing	
18	Approvals	CE C-Tick FCC LVD VCCI	
19	Operating Environments	Temperature: -20°C ~ 50°C (-4°F ~ 122°F)	
		Humidity: 90% RH	

<b>MINI Dome Camera</b>			
<b>S.No</b>	<b>Feature</b>	<b>Required Parameters</b>	<b>Compliance</b>
<b>1</b>	<b>System Information</b>		
i	CPU	Multimedia SoC (System-on-Chip)	
ii	Flash	16 MB	
iii	RAM	256 MB	
<b>2</b>	<b>Camera Features</b>		
i	Image sensor	1/2.7" progressive CMOS	
ii	Maximum Resolution	1920x1080 (2MP)	
iii	Lens Type	Fixed-focal	
iv	Focal Length	f = 3.6 mm	
	Aperture	F1.8	
v	Field of View	97° (horizontal), 52° (vertical), 113° (diagonal)	
vi	Shutter Time	1/5 sec. to 1/32,000 sec.	
vii	Minimum Illumination	0.58 Lux @ F1.8	
viii	On-board Storage	MicroSD/SDHC/SDXC card slot	

<b>3</b>	<b>Video</b>		
i	Compression	H.264 & MJPEG	
ii	Maximum Frame Rate	In both compression:	
		15 fps @ 1920x1080, 30 fps @ 1280x720	
iii	Maximum Streams	3 simultaneous streams	
iv	S/N Ratio	Above 53 dB	
v	Video Streaming	Adjustable resolution, quality and bitrate	
		Configurable video cropping for bandwidth saving	
vi	Image Settings	Adjustable image size, quality and bit rate	
		Time stamp, text overlay, flip & mirror	
		Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks	
		Scheduled profile settings	
<b>4</b>	<b>Network</b>		
i	Users	Live viewing for up to 10 clients	
ii	Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP	
iii	Interface	10Base-T/100 BaseTX Ethernet (RJ-45) (POE)	
<b>5</b>	<b>Intelligent Video</b>		
i	Video Motion Detection	Triple-window video motion detection	
<b>6</b>	<b>Alarm and Event</b>		
i	Alarm Triggers	Video motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection	
ii	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP and NAS server	
		File upload via HTTP, SMTP, FTP and NAS server	
<b>7</b>	<b>General</b>		
i	Connectors	RJ-45 for Network/PoE connection	
ii	LED Indicator	System power and status indicator	
iii	Power input	IEEE 802.3af PoE Class 1	
iv	Safety Certifications	CE C-Tick FCC ( Class B ) LVD VCCI	
v	Operating Temperature	Starting Temperature: -10°C ~ 40°C (14°F~ 104°F)	
		Working Temperature: -20°C ~ 40°C (-4°F~ 104°F)	



## Virtual 360 PTZ camera

S.No	Feature	Required Parameters	Compliance
<b>1</b>	<b>System Information</b>		
i	CPU	Multimedia SoC (System-on-Chip)	
ii	Flash	128 MB	
iii	RAM	256 MB	
<b>2</b>	<b>Camera Features</b>		
i	Image sensor	1/2.5" Progressive CMOS sensor in 2560 x 1920 resolution	
ii	Maximum Resolution	1920x1920	
iii	Lens Type	Fixed-focal	
iv	Focal Length	f = 1.5 mm	
v	Aperture	2.8	
vi	Field of View	180° (horizontal), 180° (vertical), 180° (diagonal)	
vii	Shutter Time	1/5 sec. to 1/32,000 sec.	
viii	WDR Technology	WDR enhanced	
ix	Day & Night	Removable IR-cut filter for day & night function	
x	Minimum Illumination	0.6 Lux @ F2.8 ( Color ), 0.01 Lux @ F2.8 ( B/W ), 0 Lux @ IR LED ON	
xi	Pan / Tilt / Zoom	ePTZ, 12x digital zoom ( 12x on IE plug-in )	
xii	On-board Storage	MicroSD/SDHC/SDXC card slot	
<b>3</b>	<b>Video</b>		
i	Compression	H.264, MPEG-4 & MJPEG	
ii	Maximum Frame Rate	In all compression modes: 15 fps at 1920x1920, 30 fps at 1920x1080	
iii	Maximum Streams	3 simultaneous streams	
iv	S/N Ratio	Above 50 dB	
v	Dynamic Range	Above 60 dB	
vi	Video Streaming	Adjustable resolution, quality and bitrate Configurable video cropping for bandwidth saving	
vii	Image Settings	Time stamp, text overlay, flip & mirror, scheduled profile settings, configurable brightness/contrast/saturation/sharpness, white balance, exposure control, gain, backlight compensation, privacy masks, pixel calculator, 3D-Noise reduction	
<b>4</b>	<b>Audio</b>		
i	Audio Capability	Audio input / output ( full duplex )	
ii	Interface	Built-in microphone External microphone input External line output	
iii	Effective Range	5 meters	
<b>5</b>	<b>Network</b>		
i	Users	Live viewing for up to 10 clients	

ii	Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP	
iii	Interface	10 Base-T / 100BaseTX Ethernet (RJ-45)	
<b>6</b>	<b>Intelligent Video</b>		
i	Video Motion Detection	Five-window video motion detection	
<b>7</b>	<b>Alarm and Event</b>		
i	Alarm Triggers	Video motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection	
ii	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP and NAS server	
		File upload via HTTP, SMTP, FTP and NAS server	
<b>8</b>	<b>General</b>		
i	Connectors	RJ-45 cable connector for Network/PoE connection	
ii	LED Indicator	System power and status indicator	
iii	Power input	12V DC	
		IEEE 802.3at PoE Class 4	
iv	Operating Temperature	Starting Temperature: -25°C ~ 50°C ( -13°F ~ 122°F )	
		Working Temperature: -40°C ~ 50°C ( -40°F ~ 122°F )	

<b>Full HD PTZ Camera</b>			
<b>S.No</b>	<b>Feature</b>	<b>Required Parameters</b>	<b>Compliance</b>
<b>1</b>	<b>System Information</b>		
i	CPU	Multimedia SoC (System-on-Chip)	
ii	Flash	128 MB	
ii	RAM	256 MB	
<b>2</b>	<b>Camera Features</b>		
i	Image sensor	1/3" Progressive CMOS	
ii	Maximum Resolution	1920x1080	
iii	Lens Type	20x optical zoom, auto focus	
iv	Focal Length	f = 4.7 ~ 94 mm	
v	Aperture	1.6 (wide), 3.5 (tele)	
vi	Auto-iris	DC-iris	
vii	Field of View	3° ~ 55° (horizontal), 2° ~ 32° (vertical), 3° ~ 64° (diagonal)	
viii	Shutter Time	1/1 sec. to 1/10,000 sec.	
ix	Day & Night	Removable IR-cut filter for day & night function	
x	Minimum Illumination	0.02 Lux @ F1.6 ( Color ), 50 IRE (Color)	
xi		0.001 Lux @ F1.6 ( B/W ), 50 IRE (B/W)	
xii	Pan speed	0.05° ~ 450° / sec.	
xiii	Pan range	360° endless	
xiv	Tilt speed	0.05° ~ 450° / sec.	

xv	Tilt range	220° ( -110° ~ +110° )	
xvi	Preset Locations	256 preset locations, 40 presets per tour	
xvii	Pan / Tilt / Zoom	48x digital zoom (4x on IE plug-in, 12x built-in)	
		Auto pan mode, Auto patrol mode	
xviii	On-board Storage	SD/SDHC/SDXC card slot	
<b>3</b>	<b>Video</b>		
i	Compression	H.264, MJPEG & MPEG-4	
ii	Maximum Frame Rate	H.264: 30 fps @ 1920x1080, 60 fps @ 1280x720	
		MPEG-4: 30 fps @ 1920x1080, 60 fps @ 1280x720	
		MJPEG: 30 fps @ 1920x1080, 60 fps @ 1280x720	
		(Up to 30/15 fps in WDR mode)	
iii	Maximum Streams	4 simultaneous streams	
iv	S/N Ratio	Above 60 dB	
v	Dynamic Range	108 dB	
vi	Video Streaming	Adjustable resolution, quality and bit rate	
		Zoom enhancement for better image quality under limited bandwidth	
vii	Image Settings	Adjustable image size, quality and bit rate	
		Time stamp, text overlay, flip & mirror	
		Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks (Up to 24)	
<b>4</b>	<b>Audio</b>		
i	Audio Capability	Audio input / Audio output (Full duplex)	
ii	Interface	External microphone input	
		External line output	
<b>5</b>	<b>Network</b>		
i	Users	Live viewing for up to 10 clients	
ii	Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, ICMP, UDP	
iii	Interface	10 Base-T / 100BaseTX Ethernet (RJ-45)	
<b>6</b>	<b>Intelligent Video</b>		
i	Video Motion Detection	Triple-window video motion detection	
ii	Auto-Tracking	Auto-tracking on moving object	
<b>7</b>	<b>Alarm and Event</b>		
i	Alarm Triggers	Video motion detection, manual trigger, periodical trigger, system boot, recording notification, audio detection	
ii	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP and NAS server	
		File upload via HTTP, SMTP, FTP and NAS server	
<b>8</b>	<b>General</b>		
i	LED Indicator	System power and status indicator	

ii	Power input	PoE plus (IEEE 802.3at compliant)	
		High Power PoE	
		AC 24V	
iii	Power consumption	PoE plus:	
		Max. 19W	
		AC 24V:	
		Max. 48W (heater on)	
iv	Casing	Weather-proof IP66- and NEMA 4X-rated metal housing	
		Built-in electrical dehumidifier device (SD8363E-M)	
v	Operating Temperature	-5°C ~ 55°C (PoE Plus)	
		-40°C ~ 55°C (AC 24V / High Power PoE)	

### Software Specification (Free Addition)

S.No	Feature	Required Parameters	Compliance
<b>1</b>	<b>General</b>		
i	Support OS	Windows 8, 7, Vista, XP	
ii	Support Web Browser	All browser	
iii	Virtual Matrix Support	VAST Matrix (Please Refer to System Requirements Below)	
iv	Devices Pack	CSV file Update	
<b>2</b>	<b>Live View (Local Display)</b>		
i	Max. Channel		
ii	Layout	MultiLayout display, Single Layoutdisplay, Full screen display, Sequential display	
iii	Stream Application	Stream Selection &Auto Stream Size	
iv	View Application	Drag & Drop, Remote I/O Control, PIP (Digital Zoom), Instant Replay, De-interlace, Video Display Mode (Aspect Ratio)	
<b>3</b>	<b>Playback</b>		
i	Channel	16Channel or Higher	
ii	Layout	Multi Layoutdisplay: 1x1, 2x2, 1+5, 3x3, 1+12, 4x4, Single Layoutdisplay, Full screen display, Sequential display	
iii	Playback Mode	Asynchronous & Synchronous	
iv	Playback Control	Play, Rewind, Pause, Stop, Next / PreviousVideo Start, Next / PreviousFrame, 1/8X ~ 64X Speed Control, Bookmark	
v	Search Mode	Browsing, Date & Time (Fast), Event, Bookmark, Alarm, Log, Timeline, Timeline Scale	
<b>4</b>	<b>Video</b>		
i	VideoFormat	MJPEG, MPEG4, H.264AVC,H.264 SVC	
ii	VideoResolution	Up to 5 Megapixel or higher	

iii	VideoEnhancement	Basic Mode: Brightness, Contrast, Saturation, Hue Intelligent Mode: Defog, Rain, Snow, Fire / Smoke	
<b>5</b>	<b>Audio</b>		
i	Audio Format	G.711, G.726, AMR, AAC	
ii	Audio Capability	Two Way	
iii	Audio Control	Mute,Broadcasting & Sound Play	
<b>6</b>	<b>Record</b>		
i	Recording Time (sec.)	Pre-Record: 3-15, Post-Record: 10-60	
ii	Recording Stream Type	Unicast	
iii	Recording Stream	Single	
iv	Recording Mode	Continuous, Schedule, Manual, Event, ActivityAdaptive Streaming	
v	Recording Setting	Recycle (unit: Size orDay)	
vi	External Storage Recording	NAS (SMB & CIFS)	
<b>7</b>	<b>Alarm Management</b>		
i	Alarm Period (sec)	Max.30	
ii	Alarm Filter	Name,Time, Source, Event Type	
iii	Alarm Setting	LiveView AlarmNotification: Fixed &Popup Alert Sound	
iv	Schedule Type	Continuous, Schedule,Manual	
v	Camera Event	Motion, DI/O,Video lost/restore, PIR, Tampering, Temperature,IR, IVA, P-PTZ	
vi	Camera Status	Connection Status, Recording Status, Recording Error	
vii	Substation	Substation Connection Status	
viii	Storage Status	Connection Status, Capacity Status	
ix	Station Status	License Status, Network Status, Virtual Memory Status	
x	Event Action	Email, Start Recording, Set DO, GSM Short Message, HTTP &Client Notification	
<b>8</b>	<b>eMap</b>		
i	Source	Import Picture	
ii	Marked	Add, Remove, Direction Control, PTZ Control & Indicator Live View	
iii	Event Notification	Email, Start Recording, Set DO, GSM Short Message, HTTP &Client Notification	
<b>9</b>	<b>PTZ</b>		
i	PTZ/ePTZ Control	Panel Control & Mouse Click Control	
ii	PTZ/ePTZ Operation	Direction Control, Home, Zoom, Focus, Iris, Preset, Patrol (Group), Pan, Stop, Speed	
iii	PTZ Operation Mode	Click to Move & Continuous Move	
<b>10</b>	<b>Export</b>		
i	Print	Selection Windows & All Windows	

ii	Snapshot	BMP & JPEG	
iii	Export file	AVI,3GP & EXE	
11	<b>Backup</b>		
i	Schedule	NAS (SMB & CIFS)	
ii	User Level	Administrator, Power User, User, Operator & Guest	
iii	User Control	Permission, Accessible Cameras& Accessible Substation	
iv	Date & Time	Sync PC	
v	Network	DDNS,SMTP, UPnP &Proxy	
13	<b>Camera Integration</b>		
i	Camera Insert	Manual & Search	
ii	Basic Setting	User Name, Password &Camera model detection	
iii	Connection Setting	Configuration Protocol: HTTP, HTTPS Streaming Protocol: TCP,UDP,HTTP,HTTPS	
iv	Video Setting	Video Stream, Compression, Resolution, FPS, Video Quality	
v	Audio Setting	Compression &Bitrate	
vi	Remote Focus	Manual Focus Adjustment & Full Rang Scan	
vii	NTP Setting	Ip Address ( NTP Server or VAST Server ) & Updating interval	
viii	ONVIF	Version2.2 (by project)	
ix	ONVIF Discover	Discover the other brand camera through "Insert Camera"	
14	<b>Advanced Features</b>		
i	Feature	Seamless Recording	

## Annexure-C

### Price Format

Sr. N	Camera Type	Quantity	Unit Price	Total Price
1	Mini Dome Camera (POE)	11		
2	IR Low Light Bullet Camera(POE)	4		
3	IR Bullet Camera (POE)	9		
4	IR PTZ camera (POE)	1		
5	Virtual PTZ Camera 360 degree	1		
6	RF 1 set (For 1 CCTV camera connection)	1		
7	UTP Cable supply with laying	300 meters		
8	7 Mtrs Pool	2		
9	POE Injector	4		
10	Software (License Free)	1		
Taxes				

## Annexure – D

### BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

The Director  
Indian Institute of Technology Jodhpur,  
Jodhpur (India) 342011.

WHEREAS..... (Name and address of the Supplier) (hereinafter called “the Supplier”) has undertaken, in pursuance of contract no..... dated ..... (hereinafter called “the contract”) to supply  
.....  
....

AND WHEREAS it has been stipulated by you in the said contract that the Supplier shall furnish you with a bank guarantee by a scheduled nationalized bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with and due performance of the contract;  
AND WHEREAS we have agreed to give the Supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the Supplier, up to a total of .....(amount of the guarantee in words and figures), and we hereby irrevocably and absolutely undertake to pay you immediately, upon your first written demand declaring the Supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of(amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

The Bank guarantee shall be interpreted in accordance with the laws of India. The Guarantor Bank represents that this Bank Guarantee has been established in such form and with such content that is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein. The Bank Guarantee shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank or the Supplier. The Bank



further undertakes not to revoke this Guarantee during its currency except with the previous express consent of the Buyer in writing. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated

herein, the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.

This guarantee shall be valid up to and including the ..... day of ....., 20.....

.....  
(Signature with date of the authorised officer of the Bank)

.....  
Name and designation of the officer

.....  
Seal, name & address of the Bank and address of the Branch