



Dr. Chaturi Singh
Senior Research Engineer
National Wind Tunnel Facility
Indian Institute of Technology Kanpur
 KANPUR – 208016, INDIA



Email: chaturi@iitk.ac.in
 Website: www.iitk.ac.in/nwtf

Tel : 91-512-2596314, 2597159
 Fax : 91-512-2597226

Enquiry No. NWTF/IITK/2015/02

Date: May 06, 2015

Closing Date: May 29, 2015

Sealed Quotations are invited for the supply and installation of reputed brand PANASONIC/SAMSUNG/SONY Make only CCTV System comprising of the following components for NWTF Wind Tunnel Tests Monitoring and Recording applications:

S. No.	System Component	Quantity																																																						
1.	FULL HD NETWORK PTZ DOME CAMERA	04 Nos.																																																						
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Specifications</th> <th style="text-align: center;">Details</th> </tr> </thead> <tbody> <tr> <td>Camera Type</td> <td>Network PTZ Dome Camera</td> </tr> <tr> <td>Imaging Device</td> <td>CMOS/MOS sensor</td> </tr> <tr> <td>Effective Pixels</td> <td>2 Megapixels or better</td> </tr> <tr> <td>Lens Type</td> <td>Auto-focus Zoom Lens</td> </tr> <tr> <td>Digital Zoom</td> <td>12x or more</td> </tr> <tr> <td>Optical Zoom</td> <td>30x or more</td> </tr> <tr> <td>Max. Aperture (F. No.)</td> <td>F1.6 (Wide) to F4.4 (Tele) or better</td> </tr> <tr> <td>Panning Range</td> <td>0° to 360° (Endless rotation preferred)</td> </tr> <tr> <td>Panning Speed</td> <td>Preset: 300°/s max. or more, Manual: 100°/s max. or more</td> </tr> <tr> <td>Tilting Range</td> <td>0° to 180° or more</td> </tr> <tr> <td>Tilting Speed</td> <td>Preset/Manual: 100°/s max. or more</td> </tr> <tr> <td>Day & Night Feature</td> <td>Day/Night Feature Required</td> </tr> <tr> <td>Horizontal Viewing Angle</td> <td>62° (Wide) to 2.0° (Tele) or better</td> </tr> <tr> <td>Gain Control</td> <td>Auto/Manual or ON: LOW/MID/HIGH, OFF</td> </tr> <tr> <td>White Balance</td> <td>Auto/Manual Control</td> </tr> <tr> <td colspan="2">Image Specifications</td> </tr> <tr> <td>Image Size</td> <td>Various up to 1920x1080 or better</td> </tr> <tr> <td>Resolution</td> <td>2.1 megapixel/1080p</td> </tr> <tr> <td>Compression Format</td> <td>H.264, JPEG</td> </tr> <tr> <td>Frame Rate (FPS)</td> <td>Variable up to 60 fps max.</td> </tr> <tr> <td colspan="2">Interface Specifications</td> </tr> <tr> <td>Network Connectivity</td> <td>10 BASE-T/ 100 BASE-T/Tx , RJ-45 Connector</td> </tr> <tr> <td>Protocols Supported</td> <td>FTP, HTTP/HTTPS, NTP, RTP/RTCP, SNMP, TCP/IP, UDP/IP or more</td> </tr> <tr> <td>Communication Interface</td> <td>RS-232/RS-422/RS-485/USB</td> </tr> <tr> <td>Max. User Access</td> <td>Up to 14 Nos. of Users or more</td> </tr> <tr> <td>Audio Input/Output</td> <td>1/1 Input/Output Interface Connectors</td> </tr> </tbody> </table>	Specifications	Details	Camera Type	Network PTZ Dome Camera	Imaging Device	CMOS/MOS sensor	Effective Pixels	2 Megapixels or better	Lens Type	Auto-focus Zoom Lens	Digital Zoom	12x or more	Optical Zoom	30x or more	Max. Aperture (F. No.)	F1.6 (Wide) to F4.4 (Tele) or better	Panning Range	0° to 360° (Endless rotation preferred)	Panning Speed	Preset: 300°/s max. or more, Manual: 100°/s max. or more	Tilting Range	0° to 180° or more	Tilting Speed	Preset/Manual: 100°/s max. or more	Day & Night Feature	Day/Night Feature Required	Horizontal Viewing Angle	62° (Wide) to 2.0° (Tele) or better	Gain Control	Auto/Manual or ON: LOW/MID/HIGH, OFF	White Balance	Auto/Manual Control	Image Specifications		Image Size	Various up to 1920x1080 or better	Resolution	2.1 megapixel/1080p	Compression Format	H.264, JPEG	Frame Rate (FPS)	Variable up to 60 fps max.	Interface Specifications		Network Connectivity	10 BASE-T/ 100 BASE-T/Tx , RJ-45 Connector	Protocols Supported	FTP, HTTP/HTTPS, NTP, RTP/RTCP, SNMP, TCP/IP, UDP/IP or more	Communication Interface	RS-232/RS-422/RS-485/USB	Max. User Access	Up to 14 Nos. of Users or more	Audio Input/Output	1/1 Input/Output Interface Connectors	
Specifications	Details																																																							
Camera Type	Network PTZ Dome Camera																																																							
Imaging Device	CMOS/MOS sensor																																																							
Effective Pixels	2 Megapixels or better																																																							
Lens Type	Auto-focus Zoom Lens																																																							
Digital Zoom	12x or more																																																							
Optical Zoom	30x or more																																																							
Max. Aperture (F. No.)	F1.6 (Wide) to F4.4 (Tele) or better																																																							
Panning Range	0° to 360° (Endless rotation preferred)																																																							
Panning Speed	Preset: 300°/s max. or more, Manual: 100°/s max. or more																																																							
Tilting Range	0° to 180° or more																																																							
Tilting Speed	Preset/Manual: 100°/s max. or more																																																							
Day & Night Feature	Day/Night Feature Required																																																							
Horizontal Viewing Angle	62° (Wide) to 2.0° (Tele) or better																																																							
Gain Control	Auto/Manual or ON: LOW/MID/HIGH, OFF																																																							
White Balance	Auto/Manual Control																																																							
Image Specifications																																																								
Image Size	Various up to 1920x1080 or better																																																							
Resolution	2.1 megapixel/1080p																																																							
Compression Format	H.264, JPEG																																																							
Frame Rate (FPS)	Variable up to 60 fps max.																																																							
Interface Specifications																																																								
Network Connectivity	10 BASE-T/ 100 BASE-T/Tx , RJ-45 Connector																																																							
Protocols Supported	FTP, HTTP/HTTPS, NTP, RTP/RTCP, SNMP, TCP/IP, UDP/IP or more																																																							
Communication Interface	RS-232/RS-422/RS-485/USB																																																							
Max. User Access	Up to 14 Nos. of Users or more																																																							
Audio Input/Output	1/1 Input/Output Interface Connectors																																																							

	Storage Memory Slot	SD/SDHC/SDXC Memory Card Option	
	Power Requirements	100-240 V AC operated suitable power adaptor for the camera	
	Operating Temperature	-10°C to +50°C or Better	
	Operating Humidity	Less than 90%	
	Ingress Protection/Vandal Resistance	IP66/IK10	
	Accessories Required		
	Mounting Accessories	Complete Camera Mounting Accessories including Brackets	
	Manual Required	User/Installation Manual, Service/Maintenance Manual	
2.	NETWORK VIDEO /DISC/ SURVEILLANCE RECORDER (NVR/NDR/NSR) COMPATIBLE WITH THE SYSTEM COMPONENT LISTED AT S. No. 1		01 No.
	Specifications	Details	
	Recorder Type	NVR or NDR or NSR	
	Max. No. of Camera Support	16 or more	
	Internal Storage (HDD)	HDDs with total storage capacity of up to 4TB or more	
	External SATA Ports	2 or more	
	Display		
	Resolution	Up to 2 Megapixel/1080p (Full HD)	
	Frame Rate	480 fps(NTSC), 400 fps(PAL)	
	Multi Screen	Required	
	Recording		
	Compression	H.264/JPEG/MJPEG/MPEG-4	
	Resolution	Up to 2 Megapixel/1080p (Full HD)	
	Maximum Recording Rate	Up to 64 Mbps or more	
	Interface/Connectivity		
	Video output (Monitor Support)	VGA/HDMI/RGB	
	Serial Interface	RS-232/RS-422/RS-485	
	USB Ports	2 USB Ports	
	Network Interface	10BASE-T /100BASE-TX /1000BASE-T (RJ-45)	
	Protocol Support	TCP/IP, RTP	
	Power Requirements	100-240 V AC operated suitable power adaptor for the recorder	
	Manuals Required	User/Installation Manual, Service/Maintenance Manual	
3.	THREE DIMENTIONAL (3D) JOYSTICK PTZ CONTROLLER COMPATIBLE WITH THE SYSTEM COMPONENTS LISTED AT S. NO. 1 & 2		01 No.
	Specifications	Details	
	Controller Type	3D Joystick PTZ Controller with Keyboard and LCD Display	
	Max. No. of Camera Control	16 or more	
	Power Requirements	100-240 V AC operated suitable power adaptor for the controller	
	Communication Interface	RS-232/RS-422/ RS-485/RJ-45/USB	
	Manuals Required	User/Installation Manual, Service/Maintenance Manual	

4.	FULL HD LED TELEVISION		06 Nos.
	COMPATIBLE WITH THE SYSTEM COMPONENTS LISTED AT S. NO. 1 & 2		
	Specifications	Details	
	Screen Type	LED	
	Screen Size	40 inch or 101.6 cm	
	Display Feature/Resolution	Full HD/ 1920x1080	
	Refresh/Clear Motion Rate	60/100 Hertz	
	Connectivity	HDMI/USB/Composite Video/Component Video	
	Power Requirements	100-240 V AC operated suitable power adaptor for the TV	
Mounting Accessories	Mounting Accessories including Brackets		
Manuals Required	User/Installation Manual, Service/Maintenance Manual		

Terms and Conditions for Supply of the Items listed in the above Table:

1. All sealed quotations should reach the undersigned by **29-5-2015**.
2. Validity of the Quotations should be at least for **60 days**.
3. Delivery Period within **06 weeks** from date of Purchase Order.
4. All the system components mentioned in the above table from S. No. 1 to 3 are required to be quoted/supplied of the same make.
5. For the supply of the system, the vendors/suppliers are required to provide Dealership/ Authorization Certificate for the supply of the products.
6. The vendors/suppliers are requested to provide complete model details along with their specification sheets for the quoted products.
7. Please quote giving unit price for the system components. Quantity of the system components to be purchased may increase or decrease.
8. The prices offered should be for free delivery at IIT Kanpur and should include system installation charges and training cost for the system.
9. The supplied system should have at least **two years on-site comprehensive warranty** including system software, application software, etc.
10. Payment Terms: As per the Institute Rules.
11. IIT Kanpur is exempted from excise duty.
12. Please mention the tax rates clearly, if charges extra.
13. Since the items are going to be used for educational R&D purpose, an educational discount is requested on the system prices.

Address for the Quotation:

Dr. Chaturi Singh
Senior Research Engineer
National Wind Tunnel Facility
Indian Institute of Technology Kanpur