SPECIFICATION FOR CCTV SYSTEM

FOR TENDERING PURPOSE ONLY

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GENERAL POINTS

1.0 GENERAL

1.1 General Description:

The CCTV system shall be used for security purpose.

1.2 The specification covers the supply & installation of CCTV system.

1.3 The vendor shall study the specification and satisfy himself thoroughly and shall take full responsibility of the smooth, reliable and safe working.

1.4 All items of instrument shall be completed in all respects and any instrument not covered in the specification but essential for proper installation, operation and maintenance of the instrument shall be included by the vendor in his offer and the reasons for such inclusion shall be clearly stated.

2.0 SCOPE OF WORK

2.1 The scope of work includes supply & installation of CCTV System as specified in this specification.

2.2 Supply of necessary spares.

2.3 Packaging, forwarding, transport, loading, unloading, precaution against damage during transit etc.

2.4 Performance Guarantee.

2.5 Two sets of operation and maintenance manuals.

2.6 Test Certificate: Vendor shall provide all necessary test certificates.

3.0 SAFETY

3.1 All equipments items shall be complete with approved safety devices, wherever a potential hazard to personnel exists, and with provision for safe access to personnel to and around the instrument for operational and maintenance functions.

4.0 TIME FOR COMPLETION

4.1 The vendor shall complete supply, and installation of the instrument within one months from the placement of order.

5.0 TEST AND INSPECTION

5.1 Inspection of the equipment will be done at PICO HMC.

5.2 The vendor shall demonstrate all the features of the equipment mentioned in the technical specification.

5.3 The vendor is solely responsible for installation, system operational at PICO.

6.0 OPERATION CONDITIONS

6.1 All equipment shall be designed for smooth, efficient and trouble free operation in tropical humid climate of 45 ^{Q}C ambient and a humidity of 90%.

6.2 In cases where the offer deviates from the specification, the vendor shall indicate clearly in his offer the specification proposed by him along with details thereof and the reasons for the deviation. Each exception to the specification or other parts of the tender document shall be listed separately by the vendor. If exceptions are not clearly listed they will not be considered by the Purchaser later.

7.0 DOCUMENTS

7.1 The vendor shall supply the hard and soft copy of Operation and Maintenance manual in duplicate. All necessary literature giving complete technical details shall be provided. He should also provide the test certificates given by manufacturer.

7.2 The vendor shall provide the original DVD/CD of the software.

7.3 The vendor shall furnish a list of users in Pakistan to whom the similar equipment was supplied.

8.0 INSTALLATION

8.1 It is to be noted again that supply & installation of the system with all accessories, auxiliaries, and any item not covered in the specification but essential for proper installation, operation and maintenance of the CCTV System shall be included and executed by the vendor.

8.2 The supply will not be deemed complete until the commissioning trial of the whole system is carried out by the vendor at PICO successfully.

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9.0 PERFORMANCE AND GUARANTEE

9.1 All necessary tests shall be carried out at PICO by the vendor to demonstrate whether performance of the instrument conforms to the relevant standards and specifications and meets the functional requirement indicated in the specification.

10.0 WARRANTY:

10.1 The vendor shall provide warranty/guarantee for the entire system for a period of 12 months from the date of commissioning.

10.2 The vendor shall be responsible for routine and breakdown Maintenance and monthly monitoring visit of the equipment during warranty period.

11.0 PAYMENT TERMS

11.1 90 % payment against inspection acceptance delivery and completion of installation / commissioning and balance 10% after the completion of Warranty period.

12.0 CAPABILITY AND EXPERIENCE

12.1 The vendor shall have executed at least five (5) similar kind of work within last one year. The vendor shall submit along the offer the reference list of the similar work. Offers received without the reference list may be rejected.

13.0 PRE-BID DISCUSSIONS

13.1 Before quoting the vendor shall visit PICO with prior appointment for understanding the exact requirement. Tenders quoted without understanding the requirement may be rejected.

14.0 TRAINING

14.1 Vendor shall provide 1 week training about the working of CCTV System and the relevant software.

15.0 QUOTATION

15.1 Vendor should submit quotation in PKR only.

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(1) 16 channel DVR Specification Qty=01

16 Channel Digital Video Recorder with pre-installed 1TB HDD / Add up to 16 cameras / latest recording technology / HDMI Output / Web and Smartphone remote viewing / Transfer incidents to USB flash drive Wider, clearer DVD-quality.

Video

Video Inputs	960H 16 Channels BNC
Video Outputs	VGA and HDMI Output
Display Resolution	Up to 1080p
Display Frame Rat	NTSC: 30fps per channel / PAL: 25fps per channel

Audio

Audio Input	16 RCA Input
Audio Output	1 RCA Output

Recording

Compression Format	H.264
Recording Resolution	NTSC: 960H (960 x 480) PAL: 960H (960 x 576)
Recording Frame Rate	Real Time: NTSC: Global 480fps / 30fps per Channel PAL: Global 400fps / 25fps per Channel
Recording Modes	Manual / Schedule / Motion
HDD Interface / Memory Type	1TB SATA2 HDD (installed)
Hard Drive Support	Up to 2TB SATA2 HDD

Network

LAN Connection	One RJ45 Port
Network Protocol	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP
Dynamic DNS	Yes (swanndvr.net, DYNDNS)
Remote Operation	IE, MyDVR, CMS, SwannView

General

Operating Power	DC 12V
Back up method	External storage via USB, eSATA or network
Mouse Support	Yes
Remote Control	Yes (uses 2 x AAA, included)

(2) Night Vision/ Day & Night CCTV Camera Qty=16

General Requirements

- The High-Resolution Night vision Camera shall include, as a minimum, the following features/functions/specifications.
  •High performance, ultra miniature, high-resolution digital low light CCTV color camera with 0.5 lux low light sensitivity in color mode, and 0.06 lux low light sensitivity in "night" mode.
- The High-Resolution Night vision Camera shall incorporate a 1/3- inch interline transfer CCTV, digital signal processing (DSP), and a minimum of 480 TV lines of resolution utilizing an effective pixel count of no less than 752 (H) x 582 (V) PAL.

- The High-Resolution Night vision Camera shall provide excellent color performance in low light, down to 0.5 lux @ f1.2 (50IRE). The camera shall incorporate advanced circuitry allowing for automatic changeover to monochrome, providing monochrome performance in extremely low light down to 0.06 lux @ f1.2 (50IRE).
  •For extreme lighting situations, the camera shall support the use of DC and Video iris lenses, selectable by a switch on the unit.
- The High-Resolution Camera shall include a switching 12VDC.
- The High-Resolution Camera shall have a signal to noise ratio of 50 dB with the AGC off.
- The High-Resolution Camera shall incorporate auto white balance to constantly monitor the light and adjust its color. The following three modes must be available:
  Auto-White Balance (WB-Auto), Preset White Balance (WB-Push),
  Manual White Balance (WB-Manual)
- To allow the image to be viewed properly on a standard monitor, the High-Resolution Camera's default gamma value must be 0.45.
- The High-Resolution Camera shall include a Flicker less mode, allowing the unit to be used in applications with 50Hz fluorescent lighting.
- The High-Resolution Camera shall offer a menu system capable of activating all the features and options available on the camera.

Specifications

Sensor	1/3" SHARP
Effective Picture Elements (H x V)	768 (H)) x 494 (V)
Horizontal Resolution	600 TV Line
Minimum Illumination	0.01 lux F1.2 / 0 lux (with IR LED on)
S/N Ratio	More than 48 dB
Scanning System	2:1 interface
Synchronous System	Internal, negative sync.
Auto Electronic Shutter	1/60 s ~ 1/100,000 s
Gamma Characteristic	0.45
IR Distance	196 ft (with Ø5 x 72 PCS Infrared LEDs)

IR Status	Under 10 lux by CDS
IR Power On	CDS AUTO control
Video Output	1 Vp-p, 75 Ω
Auto Gain Control	Auto
Power	12 V dc
Lens	12 mm manual zoom
Storage Temperature	-22 ~ 140 °F (-30 ~ +60 °C) RH 95 % max
Operating Temperature	14 ~ 122 °F (-10 ~ +50 °C) RH 95 % max

(3) <u>CCTV Camera Housing Qty=16</u>

The Camera Housing shall include, as a minimum, the following features/ functions/ specifications:
•The Camera Housing shall incorporate a side-hinged lid to provide
easy access to the camera and lens for trouble-free installation and servicing.
•The Camera Housing shall be constructed from light gray epoxy
powder coated die-cast, extruded, and sheet aluminum to provide an excellent barrier against outdoor environments.
•The Camera Housing shall be totally protected from dust and strong jets of water.
•Th Camera Housing shall utilize three (3) weather
proof cable entry glands on the rear of the housing to allow for easy installation of power and video cables.
•The Camera Housing manufacturer shall offer the housing with
factory installed sunshield, heater, and blower and prepackaged with a wall mount.
•The Camera Housing shall have a removable camera sled that can be secured along any position in the housing.

(4) <u>Duct Cabling</u>

Video cable for Video & flexible best quality cable for power in fireproof duct pate with proper fitting materials.

(5) Walk Through Metal Detectors Gate Qty=01

Technical specification

1. Electric current: AC220V~230V 50/60Hz
2. Power: 35W
3. Work environment: -20℃~+45℃

Characteristic:

1. 6 Pinpoint zones to precisely identify multiple target locations from head to toe.
2. Advanced broadband detection technology: can detect ferrous and non-ferrous articles.
3. Sensitivity adjustable from Level 0 to 199 (200 levels)
   High: Can detect a pin
   Low: Detect big metal articles such as: knife, gun, and copper, aluminums, zinc (more than 150g), ignoring metal in belt button, shoes.
4. Shock proof to avoid false alarm
5. Sound and light alarm
6. Intelligent traffic and alarm counters that calculate traffic flow and resultant alarms.
7. Four LED light bars on both door panels: gives alarm corresponding to the height or human body.
8. Tamper-Proof: operate program is protected by password.
9. Adjustable operating frequencies---eliminate the potential effects from X-ray units, radios and other electrical interference sources
10. Mix distance between two Walk-thru: 0.3 meters at low sensitivity, 0.5 meters at high sensitivity
11. Harmless to pregnant woman and heart pacemaker.
12. With Remote controller
13. LCD screen show operate steps in English
14. Networking: Remote ability with Desktop Remote Control

(6) Metal Detector Qty= 01

Specifications:

1) Power: one 9V alkaline battery
2) Operating frequency: 50kHz ±10% (sine wave) sensitivity: ≥5cm
3) Indication: audio alert and led (red) alert, audio tone changes as the metal size changes
4) Silent operation: connects the earphones to the detector for silent operation
5) Blink: when the unit is working properly, the blink indicator flashes
6) Headphone jack: 1/8"
7) Low sensitivity: to lower the sensitivity, at this time the sensitivity is >2cm
8) Low battery indication

(7) UPS 1KVA/12V & Wet Battery 200A for DVR & CCTV Camera Qty=01

UPS Specification:.

1. Battery Low: Rapid beeping tone (approx. 1.00Hz)
2. Overload: Continuous Tone
3. Front Panel Display: High Intensity LCD panel
4. Display Parameters: Input voltage, Output voltage, Input Frequency, Output Frequency

(8) <u>LED 40 Inch for DVR & CCTV Camera Display Qty=01</u>

Input & Output

- HDMI x 2
- USB 2.0 x 1
- Digital Audio(Optical) x 1
- PC Audio Input(Mini Jack) x 1
- DVI Audio Input x 1(Common Use for PC Audio in)
- Component(Y/Pb/Pr) x 1
- Composite(AV) x 2(1: Common use for Comp Y)
- RF Input x 2(Terrestrial/Cable Input)

Video

- 40" Screen size
- 1920 x 1080 Resolution
- 100 Clear Motion Rate(CMR)
- Wide Color Enhancer Plus

Connectivity

- 2 HDMI
- 1 USB
- Headphone x 1 ea
- Component In (Y/Pb/Pr) x 1 ea
- Composite In (AV) x 1 (Common Use for Component Y) ea
- RF In (Terrestrial / Cable input) x 1 ea

General Feature

- Game Mode
- Connect Share™ USB Movie

Power

- Eco Sensor available
- Auto Power Off available
- Clock & On/Off Timer available
- Sleep Timer available
- Under 0.3W
- AC100-240V 50/60Hz Power Supply

Additional Feature

- Sleep Timer
- Clock & On/Off Timer
- Auto Channel Search
- Auto Power off
- Auto Volume Leveler
- Digital Noise Filter

Tuner/Broadcasting

- Ready
- Analog Tuner available
- Auto Channel Search available