

Scope of Work (SoW) for Installation of CCTV System in Examination Hall

Introduction

This Scope of Work (SoW) defines the activities, responsibilities, and deliverables required for the successful installation and commissioning of a CCTV surveillance system in the examination hall. The system shall ensure real-time monitoring, recording, playback, and secure data storage to maintain examination integrity and security.

Objectives

- To provide 24x7 surveillance coverage of the examination hall.
- To monitor all examination-related activities in real time from a centralized display unit.
- To record video footage with sufficient storage for archival and verification purposes.
- To provide tamper-proof evidence in case of disputes or malpractice.
- To enable easy operation by examination staff with minimal technical intervention.

Equipment to be Installed

- CCTV 6MP IP Cameras – 08 Nos.
- 8-Port PoE Switch – 01 No.
- 4-Channel NVR – 01 No.
- 8TB Surveillance Grade Hard Disk – 01 No.
- Cat 6 Cable with casing patti – Approx. 300 Mtr.
- 6U Wall Mount Rack – 01 No.
- Display Unit (LED Monitor, 32") – 01 No.
- Associated accessories (RJ-45 connectors, power cables, adapters, screws, clamps, etc.)


Detailed Scope of Work

Pre-Installation Activities

- Conduct a joint site survey with the concerned authority to finalize installation points for cameras, rack, and display unit.
- Mark cabling paths ensuring minimal disruption and concealed routing.
- Confirm power points availability and UPS/surge protection requirements.
- Submit an installation layout plan for approval prior to execution.

Camera Installation

- Install 08 Nos. 6MP IP cameras at designated points covering entry/exit, seating area, invigilator's desk, and blind spots.
- Use vandal-proof and weather-resistant housings (IP67/IK10 compliant).
- Secure cameras with brackets/clamps and conceal connections.
- Test each camera for clarity, focus, and coverage.


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Structured Cabling & Wiring

- Lay Cat 6 LAN cables from each camera to the control rack using ISI-marked PVC casing/path
- All cables to be concealed, properly clipped, and neatly dressed.
- Each cable shall be tested with a LAN tester for continuity and performance.
- Label both ends of each cable for identification (Camera-1, Camera-2, etc.).

Rack & Switch Installation

- Install a 6U wall-mounted rack at the control desk/location.
- Mount the PoE switch, NVR, and associated power equipment inside the rack.
- Ensure proper earthing, grounding, and ventilation.
- Route patch cords and power cables using cable organizers.

NVR & Hard Disk Setup

- Install and configure 4-channel NVR with 8TB surveillance-grade HDD.
- Set recording parameters: Resolution 6MP, Frame rate ≥ 20 fps, Compression H.265+.
- Recording mode: 24x7 continuous + event-based (motion detection).
- Configure storage to maintain recordings for at least 30 days.

Display Unit Installation

- Install a 32" LED monitor at the control location.
- Connect via HDMI to NVR for real-time display of all cameras.
- Configure split-screen view (4/8-channel live view).
- Provide remote control/keyboard operation for easy switching.

Power & Protection

- Ensure all equipment is connected to stable power supply.
- Provide surge protectors and UPS backup (if available).
- Verify PoE switch provides stable power to all IP cameras.

Testing & Commissioning

- Test each camera feed for clarity, coverage, and storage.
- Verify recording/playback on NVR.
- Check storage utilization and video retention capacity.
- Conduct load test with all cameras working simultaneously.

Training & Handover

- Provide hands-on training to designated examination staff for monitoring, playback, and backups.
- Submit documentation: system layout, cable labeling details, user manuals, and warranty certificates.
- Obtain sign-off from authority after successful demonstration.

Deliverables

- Fully installed and commissioned CCTV system.

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- 30+ days of storage
- Operational display
- Documentation
- Onsite training

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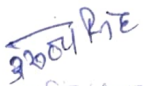
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- 30+ days of storage capacity with 24x7 recording.
- Operational display unit with live monitoring.
- Documentation, warranty certificates, and handover report.
- Onsite training session for end users.

Completion Timeline

The entire work (installation, configuration, testing, and training) shall be completed within **15 working days** from the date of issue of work order.


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