

Residential Video-Surveillance System in Student Hostel Buildings

Supply, Installation, Testing & Commissioning of indoor CCTV System in Hostel Buildings, consisting of IP67/IK10-rated Dome Cameras and 16TB Network Video Recorders

REQUEST FOR PROPOSAL

12-Aug-2024

[This RFP document is available for download only at <http://eproc.isro.gov.in>]

Indian Institute of Space Science and Technology
(Department of Space, Government of India)

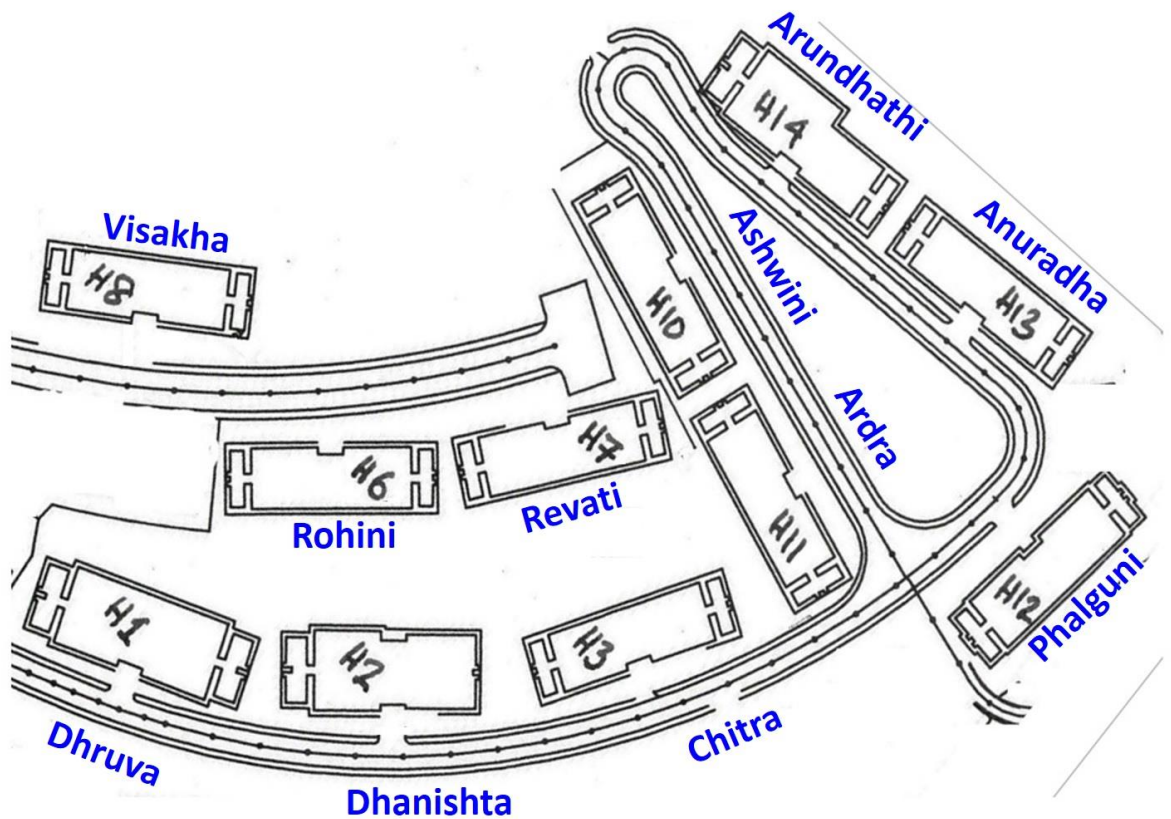
Valiamala, Thiruvananthapuram-695 547, Kerala

web : <http://www.iiist.ac.in>

1. INTRODUCTION OF RFP

IIST currently has 11 Academic Hostel building blocks spread across the student residential area in Valiamala Campus, each having ~56 rooms.

The hostels offer accommodation for about 1000 students who undergo fully-residential under-graduate, post-graduate and research programmes.



All hostels share a uniform layout, with each building consisting of 4 floors, each floor divided into 2 wings, left and right.

The common foyer/lobby at the exit/entrance in the ground floor of each hostel is already under video surveillance as part of the institutional video surveillance system.

However, considering the need for improving general safety and security of the student-residents, and monitoring the general cleanliness and maintenance of hostel infrastructure, IIST desires that video surveillance systems be implemented in all the floors of the hostels.

IIST therefore wish to choose an appropriately qualified and experienced CCTV system integrator through an open and competitive bidding process for the purpose.

This RFP (Request for Proposal) intends to specify the requirements for the video surveillance system, and invite proposals that shall be technically and commercially evaluated to choose the most competitive amongst bids received from experienced and qualified bidders.

The prospective bidders are advised to carefully read and understand the RFP, especially the technical specifications, scope of work & deliverables to meet requirements as per this RFP.

2. PROPOSAL FOR VIDEO SURVEILLANCE IN STUDENT HOSTELS.

It is proposed that vandal-proof and weather-proof dome cameras be installed at 15 locations in each hostel in order to improve the effectiveness of surveillance. Views of the locations are provided below.

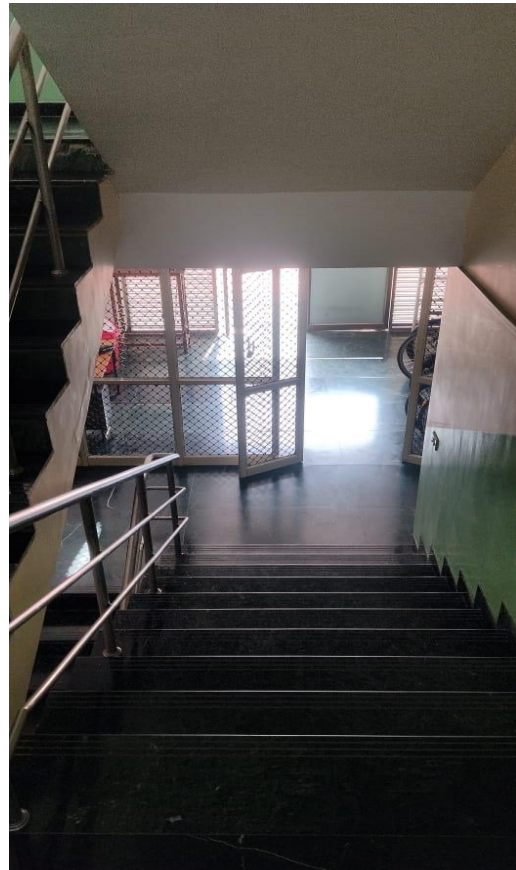
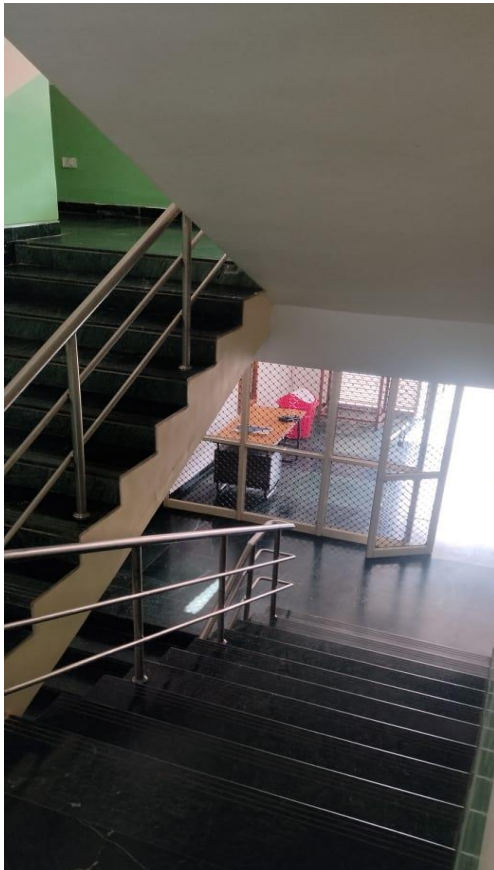
i. Camera view (Portrait Mode) of Floor Wing – 8 locations. (with overlapped view of common pathways of left and right wings, for each floor, below) – 8nos.



ii. Camera View of Entrance/Foyer/Lobby (in GF) & Canopy/Balcony (in 2F) - 2nos.



iii. Camera View of Stair-Case (in each floor) – 4nos.



iv. Camera View inside Scholar Facilitation / TV Room – 1no.



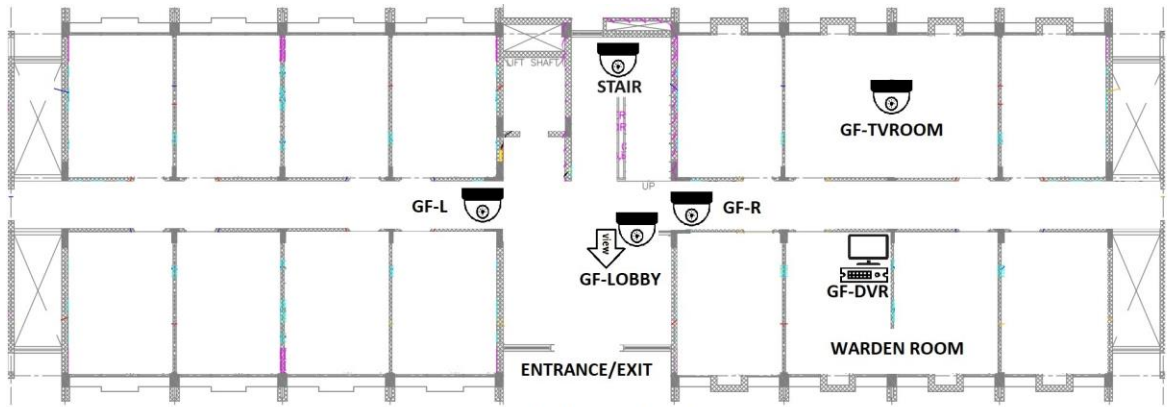
It is also proposed that surveillance videos be recorded in network video recorders (NVR) installed and maintained separately in the hostel warden's room in each hostel.

NVR shall also have facility for remote monitoring over wired-ethernet network in the central monitoring facility, or if required, over the internet at the residences of hostel wardens.

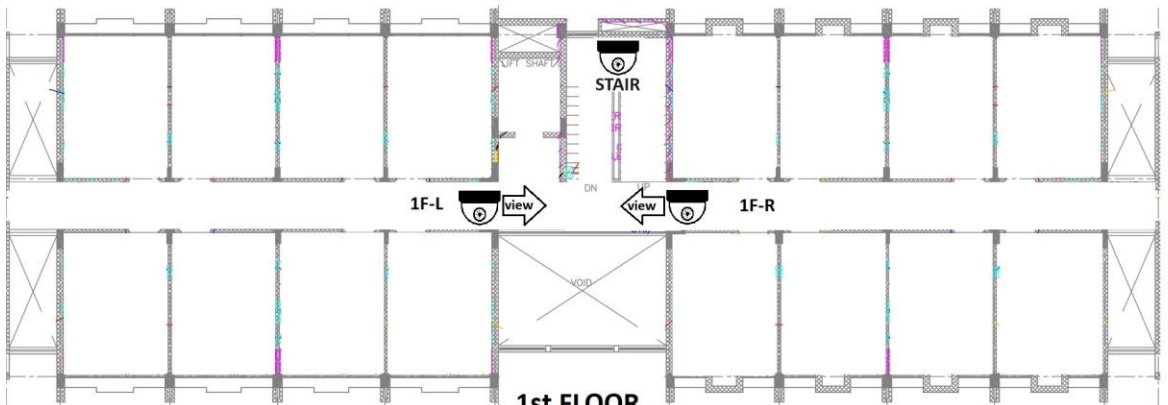
Considering that the cameras and its cabling will be installed in locations that are easily accessible to the residents, it is specified that cables used for interconnectivity be housed in rigid PVC pipes, without exposure of of cables.

Each NVR shall be housed in lockable wall-mount racks inside the warden's room. Switches with PoE (Power-over-Ethernet) shall be housed inside the wall-mount racks installed in the hostel corridors.

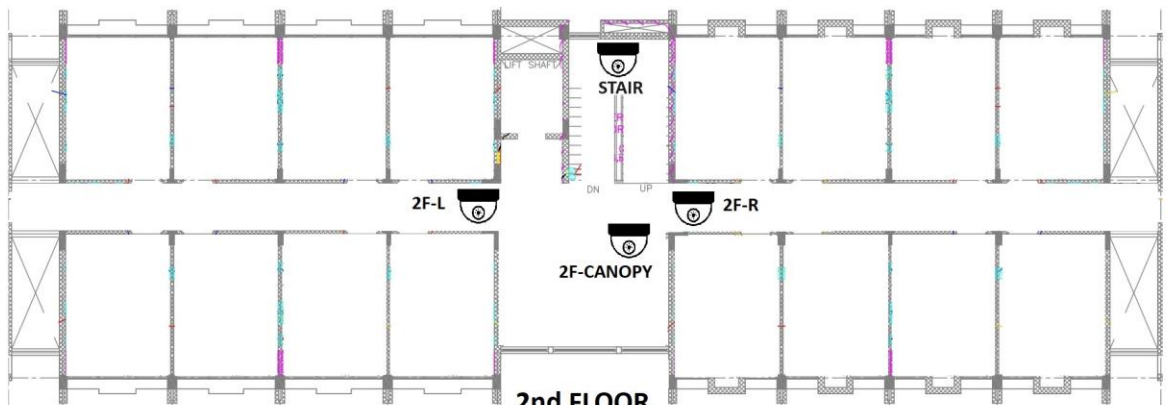
The video surveillance system is shall be laid out and installed in each hostel as per location template shown.



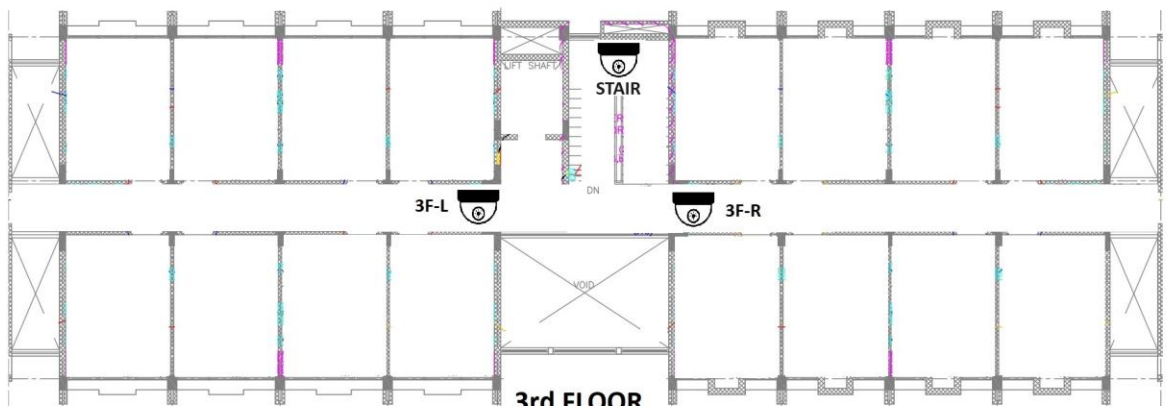
GROUND FLOOR



1st FLOOR



2nd FLOOR



3rd FLOOR

3. REQUIREMENT SPECIFICATIONS

Video surveillance system shall include the supply, installation and maintenance of the following items.

Network Video Recorders-16 Channel with 2x 8TB Surveillance HDD
4MP Dome Cameras with motorized varifocal Lens
24-inch QHD Monitor with HDMI Cable
8-Port-PoE Gigabit Network Switch, with additional 4x 1G uplink ports
4U Wall Mount Rack, Steel, Powder Coated (with power strip, lock and key)
UTP Cables, Connectors, Panels & Accessories as necessary.
3-year OEM Warranty

Detailed technical specifications of the above requirements are listed in the e-procurement portal at URL <https://eproc.isro.gov.in> and may be referred therein.

4. ESTIMATED BILL OF MATERIALS

Estimated BoM of items and services required are listed below.

		Description of Equipment / Service	TOTAL Estimated Qty
1		CAMERA, NVR, Monitor & Switch	
2	supply	Network Video Recorder-16 Channel	12
3	supply	8TB Surveillance HDD	24
4	labor	Installation/Fixing/Configuration of Network Video Recorder -16 Channel	12
5	supply	4MP Dome Camera with motorised Varifocal Lens	192
6	labor	Mounting/Installation of 4MP Dome Camera	192
7	supply	24-inch QHD Monitor with VESA Wall-Mount&HDMI Cable	12
8	supply	8-Port-Gigabit PoE Network Switch, 4x 1G uplink ports	24
9	labor	Installation of 8-Port-Gigabit PoE Switch	24
10		RACKS & Accessories	
11	supply	4U Wall Mount Rack, Steel, Powder Coated (with power strip, lock and key)	36
12	labor	Mounting/Installation of 4U Wall-Mount Rack	36
13		UTP Cables, Connectors, Panels & Accessories	
14	supply	UTP Cable, Cat-6 4-Pair 23-AWG Gigabit (Box of 305 meters)	33
15	supply	Camera PVC Box	200

		Description of Equipment / Service	TOTAL Estimated Qty
16	supply	RJ-45 Connector, Cat-6 Gigabit (Box of 100)	4
17	labor	Laying of UTP Cable, Indoor, in Conduit/Pipe/Duct	9900
18	labor	Installation/Fixing of Camera PVC Box	200
19	labor	Termination of RJ45 Connector Cable with Label	400
20		Piping, Laying	
21	supply	25mm/1" PVC Electrical Grade Conduit/Pipe. (Mfr Labeled, ISI Approved, White)	5000
22	supply	32mm/1.25" PVC Electrical Grade Conduit/Pipe. (Mfr Labeled, ISI Approved, White)	3000
23	supply	40mm/1.5" PVC Electrical Grade Conduit/Pipe. (Mfr Labeled, ISI Approved)	500
24	labor	Laying / fixing of PVC Conduit/Pipe	8500
25		Testing, Commissioning & Documentation	
26	labor	Signal Test-reports of each UTP node/link completed, complying to standards/specifications, alongwith Work-Completion Report	192

SCOPE OF WORK

The CCTV System Integrator chosen as the successful bidder shall undertake and execute the following, with effect from the date of issue of work order.

- i. Undertake to deliver all equipment ordered and execute all works specified within the time schedule specified, and with the highest level of quality and workmanship and in compliance with all relevant industry standards and technical specification related to similar works.
- ii. Supply, install, integrate, test, and handover all items as per requirements and document all works executed to meet requirement specifications in this RFP, and as per design document to be made available to the successful bidder.
- iii. Ensure that the specification of all the items supplied and services delivered are equivalent or superior to the technical specification mentioned in the RFP.

Surveillance Camera and Network Video Recorder to be supplied shall be manufactured by the same OEM.

iv. Propose to supply any other equipment or material or undertake any other work that may be deemed necessary to meet the requirements of this RFP to successfully complete work as per this RFP.

v. Survey work locations if necessary. Also, submit a well-planned Work Schedule for commencement of work. Finalise and obtain approval for commencement of work at all feasible locations as per approved design and schedule in accordance with requirement guidelines, as per approved/estimated bill of materials.

vi. Provide and position an Experienced/Certified Engineer as Single-point-of-contact (SPOC) for onsite supervision till completion of work, commissioning and training.

vii. Arrange, at no extra cost, any necessary tools and test equipment that may be necessary for the above.

viii. Provide technical support and on-site warranty by undertaking necessary on-site repair and replacement services during the warranty period specified to ensure trouble-free operation of the system.

Important Note: Prospective bidders are requested to carefully study the Detailed Terms & Conditions, Technical Specifications and estimated Bill of Material of Equipment's/Services listed in the e-procurement portal at URL <https://eproc.isro.gov.in>, for any changes/revisions/amendments.

5. GENERAL SPECIFICATIONS (SPECIAL TERMS & CONDITIONS)

Eligibility Criteria

i. The bidder shall be a firm/company established and registered in India under statutory rules, have valid statutory registrations of GST, and having one of its offices in **India**. ***(valid proof to be furnished along with bid.)***

ii. The bidder shall have qualified manpower and necessary resources, partnerships and experience in the field of CCTV System Integration. The bidder shall be a Certified System Integrator / Authorised Partner of the OEM of the CCTV items quoted. ***(copy of partnership certificates to be furnished alongwith bid.)***

iii. The bidder shall provide proof of Manufacturer's Authorisation and commitment for Certification / Warranty Support for items quoted against this RFP. ***(copy of authorization and warranty commitment from OEM to be furnished alongwith bid.)***

iv. The bidder should have relevant experience in undertaking and executing similar work in the field of CCTV System Integration as in this RFP during the past 3 years.
(copy of purchase orders executed in last 3 years to be furnished alongwith bid.)

v. The bidder should have reputed clients that include at least 3 from any of the following industry segments: Government, Defense, Higher-Educational Institutions.
(copy of purchase orders executed in last 3 years to be furnished alongwith bid.)

vi. The successful bidder shall deliver items sno.2,3,5,7,8,11,15, 16 & 17, including Camera, Network Video Recorder, Storage Rack, PoE NW Switch, UTP Cables and RJ45 Connectors, as per quantity specified in purchase order, and its invoice shall be verified and certified for payment against actual delivery and receipt of items.

The successful bidder shall execute all other items including pipes and labor as per actual requirement, and its invoice shall be made on pro-rata basis as per rates in purchase order, and shall be verified and certified after completion of work.

6. SCHEDULE FOR DELIVERY, COMPLETION OF WORK & PAYMENTS

Work as per RFP shall be completed within a total of **16 weeks** from date of receipt of work order.

The successful bidder shall visit and re-confirm site-readiness at each location and plan various activities and submit the work execution schedule within **1 week** of award of the work as per the schedule given.

The work execution schedule should clearly indicate all activities and the time required for completion of each activity taking the duration of the project as specified.

The tentative implementation phases for execution of work are proposed as per schedule given below.

Schedule of Work	Schedule of Completion	Payment	Conditions
Delivery of Items (Cameras/NVRs/Rack/Switch/ Cable etc.)	Within 4 weeks from Date of Issue of PO	Nil	Submission/ verification of delivery challans, invoices etc.
Completion of Work (Installation, Laying of Pipes)	Within 16 weeks from Date of	97% of cost of items delivered	Against verification & certification by IIST,

Schedule of Work	Schedule of Completion	Payment	Conditions
and Cables, Testing & Commissioning)	Issue of PO	(Cameras/ NVRs/Rack/ Switch/ Cables etc.). 97% of cost of work completed (pipes, labour etc,) on actuals / pro-rata basis.	OEM Certification, invoices, performance bank guarantee etc. Subject to statutory deductions, penalties etc.
3-year Warranty	3-years from Date of Commissioning	Balance 3% of costs.	Against verification & certification by IIST, Subject to statutory deductions, penalties etc.

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