

TENDER FOR SUPPLY & INSTALLATION OF CCTV

NUSRL/RNC/2024/1128217(d)



National University of Study and Research in Law (NUSRL) RANCHI

AT- Nagri, P.O Bukru, Kanke-Pithoria Road, Kanke,

Ranchi-834006, Jharkhand,

Web: www.nusrlranchi.ac.in

National University of Study and Research in Law (NUSRL) RANCHI
AT- Nagri, P.O Bukru, Kanke-Pithoria Road, Kanke,
Ranchi, Jharkhand 834006

TENDER NOTICE

NUSRL/RNC/2025/CCTV/

Online Tenders (2 Bid system – Technical and Financial) are invited on behalf of Registrar, National University for Study in Research and Law, Ranchi from authorized vendors / OEM manufactures for supply and installation of CCTV as per specifications indicated in this tender document. The tender documents are available in our website, <https://www.nusrlranchi.ac.in/tenders>. The tender document can be downloaded from <https://www.nusrlranchi.ac.in/tenders>. Last date and time for submitting bid is **08-03-2025 by 02.00 P.M. The bid will be opened on 10-03-2025 at 03:30 P.M.**

Assistant Registrar (I/c)
NUSRL, Ranchi

Instructions for Bid Submission:

The Bidder are required to prepare their bids in accordance with the requirements and submitting their bids in hard copy in sealed envelope within the given stipulated time and format.

More information useful for submitting bids may be obtained at:
<https://www.nusrlranchi.ac.in>.

**National University of Study and Research in Law
(NUSRL), RANCHI**

**Tender document for
Supply and Installation of CCTV**

Important Dates and Information	
Tender Publish Date	01-03-2025
Last Date and Time For Receipt of Bids	08-03-2025
Date & Time of Opening of Technical Bid	10-03- 2025 at 03:00 P.M
Institute's Website	www.nusrlranchi.ac.in

TENDER FOR SUPPLY & INSTALLATION OF CCTV
NUSRL/PURCHASE/TENDERS/2022-23/CCTV

National University for Study in Research and Law, Ranchi intends to deploy the CCTV as per the technical specifications mentioned in Technical Bid (Annexure-II). The interested bidders are requested to submit their bids in sealed envelope under two bid systems fulfilling below minimum Eligibility Criteria.

Minimum Eligibility Criteria:

- i) Bidder must submit OEM Authorisation /BID Specific authorization with name, address & Proper Location.
- ii) All the Paper dully certified by the Dealer along with declaration that quoted items is true.
- iii) Specific Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Product serial no's and warranty information should be available in public domain,
- iv) Bidder having annual turnover of Rs.25 Lakh per year & more than 75 Lakh in 3 years (2021-22, 2022-23, 2023-24)
- v) Experience certificate must be attached of minimum order of 10-20 lakh in single order
- vi) Compliance must be in Bidder/OEM Letterhead with company seal & sign
- vii) Specific Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents.
- viii) Bidder must have a Functional Office in the State of Consignee's Location at least of minimum 5 years - 10 years
- ix) Bidder must have GST & PAN registered of Jharkhand
- x) Bidder must submit ISO certified or MSME certificate firm.

Pre-Qualification Criteria

1. OEM to have its valid GST Certificate.
2. OEM Should ISO 9001, ISO 14001, ISO 27001, CMMI 5 Certified Company.
3. The OEM of the CCTV equipment's should not be debarred/banned/blacklisted or imposed sanctions by any Country or Government institution globally. OEM declaration to be submitted.
4. OEM Brand should have established in India at least for 5 years, it's presence should be supported with brand registration certificate like TM, COI etc.
5. Bidder shall submit the detailed BOM, Brochure of the equipment offered duly verified and certified by the respective OEM and same model should be displayed on OEM website.
6. Any representation through a Dealer/ Distributor/ Joint Venture/ consortium shall not be treated as OEM. It should be supported with necessary statutory documents and undertakings on OEM letterhead as required.
7. The OEM should not be banned / debarred / blacklisted by any government/ institution globally. The OEM must submit the self-declaration regarding the same. OEM of the equipment/ solution shall have a positive Net Worth during last 3 years.

8. All Cameras, Lenses, Housing, and its Solution should be of Single OEM.
9. OEM must provide a certificate that the proposed model of CCTV products must not become obsolete within a period of 5 years in case it gets EOL due to technology advancement then OEM will support with equivalent or higher model. Also, any product which is nearing the End-of-Sale (EOS) must not be proposed in the solution.
10. ONVIF should not have been suspended its support to the camera OEM.
11. Technical evaluation will be done only for the bidders found complying with PQQ/eligibility criteria. During Technical evaluation the bidders will be asked for POC and will be required to showcase their product for required functionalities and reports. The financial bids will be opened only of those bidders found successful during demonstration as per the bid requirement. Bidder shall submit the detailed BOM of the equipment offered duly verified and certified by the respective OEM.
12. Scope of work includes SITC of CCTV Camera System with associated h/w and s/w solution. It is also inclusive of any type of accessories cables connectors required (including maintaining of existing aesthetic beauty of the installation location) for complete installation and operationalise of CCTV Camera system without any additional cost.
13. Bidder will have to submit OEM Authorization on OEM letter head with bid number for Quoted Product.
14. Brochure and OEM Compliance of the Offered product on OEM Letterhead.

Cost of Tender document: The bidders will be required to deposit cost of Tender amounting Rs.1,000/- (Rupees One Thousand only) in the form of separate DD in favour of “Registrar”, NUSRL, Ranchi payable at Ranchi. This amount is non-refundable.

EMD: Tender should be accompanied with a demand draft for Rs.10,000/- (Rupees Ten Thousand only) as EMD, in favour of “Registrar”, NUSRL, Ranchi payable at Ranchi. The draft will be refunded to unsuccessful bidders and no interest will be paid on this.

Documents Comprising the Bid: The bid shall consist of two separate envelopes in **Part-A** and **Part-B**.

Part-A should contain:

- i. Annexure - I: Bid Forwarding Letter.
- ii. Annexure – II/A Pre- qualification
- iii. Annexure II/B: Compliance of Technical Specifications.
- iv. Authorization Letter by the OEM (Tender Specific)
- v. All documents in support of fulfilling the Eligibility Criteria.
- vi. Entire duly signed and sealed bid documents with corrigendum /amendments, if any, by the authorized representative of the bidder.

Seal the envelope with superscription “TECHNICAL BID for Supply & Installation of CCTV” - **PART “A”**

Part-B should contain: Price Bid only as per Annexure - III

Seal the envelope with superscription “PRICE BID for Supply & Installation of CCTV” - PART “B”. The Price Bid should mention only price in the stipulated format attached with the bid document. The prices shall be filled up both in figures and in words. In case of any discrepancy, the price quoted in words, shall prevail. No overwriting or use of correction fluid shall be accepted. Any corrections shall be legible and signed by the authorized signatory. Conditional bids shall be rejected.

Put above PART “A” and PART “B” in a separate sealed envelope with superscription on the top envelop as “Tender for Supply & Installation of CCTV” and handed over to Registrar Office on or before **08-03-2025** up to 2.00P.M.

The Registrar
National University of Study and Research in Law
AT- Nagri, P.O Bukru,
Kanke-Pithoria Road, Kanke,
Ranchi-834006, Jharkhand, INDIA.

Tenders received late/ incomplete are liable for rejection.

The University reserves the right to modify the conditions of the tender, at any time, without assigning any reasons for the same. NUSRL, Ranchi reserves the right to accept/ reject any Tender without assigning any reason whatsoever and at any time.

If the last date of receiving/ opening of the tenders coincide with a holiday, then the next working day shall be the receiving/opening.

Scope of Work:

Supply and Installation of Dome Camera, Bullet Camera, NVR and other accessories in the Girls hostel from entering the hostel to movement in the hostel premises and monitoring the entire area in the University at NUSRL campus, Nagri, Ranchi. For further information contact System Administrator on weekdays between 10 an to 5 pm.

Terms and Conditions:

1. **Bid Validity:** Bid submitted by bidder shall remain valid for a period of 60 days from the last date of submission of bid.
2. **Adherence to Terms and Conditions:** The bidder who wishes to submit responses to this tender notice should note that they should abide by all the terms and conditions contained in the tender document.
3. **Single Point of Contact:** The Bidder has to provide details of Single Point of Contact viz. Name, Designation, Address, Email, Telephone/ Mobile No., Fax No. etc. who can discuss and correspondence with NUSRL, Ranchi with regard to the obligations under the contract.
4. **Issuance of Purchase Order:** NUSRL, Ranchi will issue the purchase order for delivery, installation and commissioning of the CCTV as per the Scope of work mentioned in the tender document. The successful bidder is expected to complete the delivery, installation and commissioning of the CCTV within a period of three weeks from the date of purchase order.
5. **Software & Hardware Requirements:** All the software, hardware equipment like Laptops, tools etc. to carry out the installation has to be brought by the vendor at his own cost.
6. **Adherence to Safety Procedures:** Bidder shall take all necessary measures to protect the personnel, infrastructure, facilities etc. and shall observe all reasonable safety rules and regulations. Bidder shall also adhere to all security requirement of NUSRL, Ranchi during the execution of work.
7. **Expenses:** Prices payable to the bidder includes all expenses for NUSRL except GST. GST applicable at the time of billing will be paid extra.
8. **Delivery and Installation Schedule:** The bidder should deliver and install the goods within three weeks from the date of purchase order. The bidder should take responsibility of the goods till it reaches the delivery destination informed by NUSRL Ranchi, transport up to destination, insurance etc. shall be arranged by the supplier.
9. **Warranty & Support:** The warranty shall be on-site, comprehensive for a period of **three years** from the date of installation. The warranty also includes all software subscriptions and upgradation during period of warranty at no extra cost.

10. **Sub-contracting:** The contractor shall not assign, sub-contract or sub-let the whole or any part of the contract in any manner.
11. **Payment Terms:** NUSRL, Ranchi will release the payment on receipt of undisputed invoice after deduction of applicable TDS of the agreed price to the selected vendor. No advance payment will be made for procurement of CCTV. Payment on delivery after successful installation of the CCTV System.
12. **Amendment to the Bidding Document:** NUSRL, Ranchi reserves the right in its sole discretion of inclusion of any addendum to this entire bid process. All corrigendum containing amendments to this tender will be posed in our website <https://www.nusrlranchi.in/tender-noitce>. Bidders are advised to periodically check our website for updating the matter.
13. **Dispute Resolution:** Decision taken by Registrar, National University for Study in Research and Law, Ranchi will be final and binding on bidder.
14. **Applicable Law:** The Court of Jurisdiction shall be Ranchi for all such purposes.

(Registrar)

BID FORWARDING LETTER

(On the Letterhead of the Bidder)

To

The Registrar
National University for Study in Research and Law
AT- Nagri, P.O Bukru,
Kanke-Pithoria Road, Kanke,
Ranchi-834006, Jharkhand, INDIA.

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**Sub: Tender for ‘Supply and Installation of CCTV’ vide No.
NUSRL/PURCHASE/TENDERS/2021-22/CCTV**

Dear Sir,

With reference to the above tender, I/ We am/are offering rates for the above work. I/ We hereby confirm and declare that I/ We have carefully studied the tender documents therein and undertake myself / ourselves abide by the terms and conditions.

Yours faithfully,

(Signature of the Authorized Official with seal)

TECHNICAL BID
(PART - A: Pre-Qualification)

S.No.	Description	Whether (YES/NO)
1	Name of the Firm:	
2	Date of Incorporation: (Copy of “Partnership Deed” or “Certificate of Incorporation should be submitted. For entities other than Partnership Firm/ Ltd Company, other relevant documents to be submitted)	
3	Address of Firm with Tel/ Mob No., Fax No., Email ID:	
4	Name and Designation of Authorized Person with Tel/Mob No., Email ID to deal with NUSRL, Ranchi:	
5	Experience in supply and installation of CCTVs with equivalent or higher of quoted value of the quoted item by a single order in Govt. Dept/PSU/Autonomous Bodies/University in last three years as on date. (Proof of same to be attached)	
6	Bidder must have an average Turnover of rupees 25 Lacs for the year of 2021-22, 2022-23 and 2023-24, An audited certificate by a Chartered Accountant to be attached.	
7	Income Tax Returns for the year of 2021-22, 2022-23 and 2023-24 (Copies of same to be attached)	
8	Valid GST Registration certificate and PAN card (Copies of same to be attached)	
9	Firm should not be blacklisted or barred by any Dept. of Govt., PSU, Autonomous Bodies (Attach self- declaration on the letter head of bidder)	
10	Annexure - I: Bid Forwarding Letter	
11	Duly filled Annexure-II/A and II/B	
12	Annexure-III: Manufacturer Authorization Form (MAF)	
13	Authorization Letter by the OEM	
14	Entire duly signed and sealed bid documents with corrigendum/ amendments, if any, by the authorized representative of the bidder.	
15	Demand Draft of Tender Fee of Rs.1,000/- in favour of “The Registrar, NUSRL Ranchi” payable at Ranchi .	
16	Demand Draft of EMD Rs.10,000/- in favour of “The Registrar, NUSRL Ranchi” payable at Ranchi .	

Note: Mark the page with numbering.

(PART - B: Technical Compliance)

Make to be quoted:
 Model to be quoted:
 Quantity: One (01)

Technical Specifications				
2 MP IP Vari Focal Bullet Camera				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance (Yes/No)	Remarks if any
1	Type of Image Sensor	1/2.8" 2MP PS CMOS Image Sensor		
2	Resolution	2 MP		
3	Minimum Lux Level	0.002 lux@F1.4		
4	Lens	2.7mm~13.5mm motorized Lens		
5	BodyType	Bullet		
6	Shutter Speed	Auto/Manual, 1/3~1/100000s		
7	IR Range	60 mtr IR		
8	S/N Ratio	>56dB		
9	Gain Control (AGC)	Auto/Manual		
10	Iris	Fixed		
11	Video Compression	H.265+, H.265, H.264, H.264H, H.264B,		
12	Angle of View	H: 108°–30°; V: 56°–17°; D: 131°–35°		
13	WDR	WDR(120dB)		
14	Video Streaming	Main stream: (1920 × 1080@25fps); Sub stream: (704 × 480@15fps)		
15	Resolution	1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)		
16	Motion Detection & ROI	4 Areas		
17	Privacy Mask	Supported (4 areas)		
18	Audio Input & Output	1 channel		
19	Audio Compression	G.711a, G.711Mu, G726, PCM, AAC		
20	Alarm IN & Out	1 channel		
21	Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps		

22	Protocol	IPv4, IPv6, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, RTMP, SMTP, DHCP; DNS, DDNS, NTP, Multicast, ICMP, IGMP, ONVIF, CGI, P2P, Milestone		
23	Smart Detection	Intrusion, Tripwire		
24	Ethernet	RJ-45 (10/100Base-T)		
25	Alarm Event	No SD card, SD card full, SD card error, Network Disconnection, IP Conflict, Illegal Access, Motion Detection, Video Tampering, Tripwire, Intrusion, Audio Detection, Voltage Detection, Defocus Detection, External Alarm, SMD, Security Exception		
26	SMD PLUS	Supported		
27	User Account	6		
28	SDK and API	Support		
29	Smart Phone	iPhone, iPad, Android Phone		
30	Micro SD	FTP; SFTP; Mirco SD card (Max. 256GB)		
31	Operating Temperature	-30 °C to +60 °C (-22 °F to 140 °F)		
32	Storage Temperature	-40°C to +60°C (-40°F to +140°F)		
33	Power Source	12 VDC/PoE+ (802.3af)		
34	Humidity	≤95%		
35	Weatherproof Standard	IP67 & IK10(Optional)		
36	Casing	Metal		
4 MP IP Vari Focal Bullet Camera				
Make :- Model No :-				
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Type of Image Sensor	1/2.9” 4MP PS CMOS Image Sensor		
2	Resolution	4 MP		
3	Minimum Lux Level	0.005 lux@F1.5		
4	Type of Camera	Bullet Camera		
5	Shutter Speed	Auto/Manual 1/3 s–1/100,000 s		
6	Gain Control (AGC)	Auto		
7	Lens	2.7 mm–13.5 mm		
8	Lens Type	Motorized vari-focal Lens		
9	Angle Adjustment	Pan: 0°–360°; Tilt: 0°–90°; Rotation: 0°–360°		
10	S/N Ratio	>56 dB		
11	Video Compression	H.265+, H.265, H.264+, H.264, H.264H, H.264B,		

12	stream Capability	Triple Streams		
13	Angle of View	H: 104°-29°, V: 54°-16°, D: 125°-33°		
14	WDR	WDR (120dB)		
15	AI SSA	Support		
16	Anti-flicker Self-adaption (AFSA)	Support		
17	Intelligent Scene Adaption (ISA)	Support		
18	Frame Rate	Main stream: 4MP(2688 × 1520)@1-25/30fps Sub stream 1: D1(704 × 576)@1-25 fps/ (704 × 480)@1-30 fps, Sub stream 2: 2MP(1920 × 1080)@1-25/30 fps		
19	Resolution	4M (2688 × 1520), 3.6M (2560 × 1440), 3M (2048 × 1536), 3M (2304 × 1296), 1080p (1920 × 1080), 1.3M(1280 × 960), 720p (1280 × 720), D1 (704 576/704 480), CIF (352 288/352 240), VGA (640 × 480)		
20	Noise Reduction	3D DNR		
21	Image Stabilization	EIS		
22	Motion Detection * ROI	4 Areas		
23	Privacy Mask	4 areas		
24	Audio	Built-in Mic		
25	Audio Input & Output	1 Channel		
26	Audio Compression	G.711a, G.711Mu, PCM, G.726, G.723, AAC		
27	Alarm IN & Output	1 Channel		
28	Bit Rate	H.265: 3 kbps-8192 kbps, H.264: 3 kbps-8192 kbps		
29	Bit Rate Control	CBR/VBR		
30	Protocol	IPv4, IPv6, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, RTMP, SMTP, FTP, SFTP, DHCP, DNS, DDNS, QoS, UPnP, NTP, Multicast, ICMP, IGMP, NFS, PPPoE, P2P, ONVIF, CGI		
31	SDK and API	Support		
32	Ethernet	RJ-45 (10/100 Base-T)		
33	Alarm Event	No SD card, SD card full, SD card error, Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Intrusion, Tripwire, Scene changing, Audio detection, voltage detection, Defocus detection, External alarm, SMD, Safety exception		

34	Cyber Security	ideo encryption, Firmware encryption, Configuration encryption, Digest, WSSE, Account lockout, Security logs, IP/MAC filtering, Generation and importing of X.509 certification, syslog, HTTPS, 802.1x, Trusted boot, Trusted execution, Trusted upgrade		
35	Defog & Scene Self-adaptation(SSA)	Support		
36	User/Host	20		
37	Mirror Function	Support		
38	Smart Phone	iOS, Android		
39	IR	IR Range of 60Mtr.		
40	Storage	FTP, SFTP, Micro SD card (support max. 512G), NAS		
41	IVS	Tripwire, intrusion		
42	Power Source	12 VDC/PoE (802.3af)		
43	Operating Temperature	-30 °C to +60 °C (-22 °F to 140 °F) /Less than 95% RH		
44	Operating Humidity	/Less than 95% RH		
45	Storage Temperature	-40 °C to +60 °C (-40 °F to 140 °F)		
46	Weatherproof Standard	IP67		
47	Casing	Metal		
4 MP IP Fixed Bullet Camera				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Type Of Image Sensor	1/2.9Inch		
2	Resolution	4 MP		
3	Minimum Lux Level	0.06 lux@F1.6		
4	Lens	3.6mm Fixed Lens		
5	Shutter Speed	Auto/Manual 1/3 s-1/100000 s		
6	Gain Control(AGC)	Auto/Manual		
7	Lens Type	Fixed		
8	Close Focus Distance	3.6 mm: 1.7m, 2.8 mm: 1.1m		
9	WDR	WDR (120 dB)		
10	Angle of view	3.6 mm: H: 78°, V: 40°, D: 93° 2.8 mm: H: 94°, V: 51°, D: 110°		
11	S/N Ratio	>55dB		
12	Video Compression	H.265+, H.265, H.264, H.264H, H.264B,		

13	Stream Capability	Dual streams		
14	Frame Rate	Main stream: 2560 × 1440@(1-25/30 fps) Sub stream: 704 × 576@(1-25 fps)/704 × 480@(1-30 fps)		
15	Resolution	4M (2560 × 1440), 3M (2304 × 1296), 2M (1920 × 1080), 1.3M (1280 × 960), 1M (1280 × 720), D1 (704 × 576/704 × 480), VGA (640 × 480), CIF (352 × 288/352 × 240)		
16	Motion Detection & ROI	4 Areas		
17	Privacy Mask	4 areas		
18	Noise Reduction	3D DNR		
19	Audio	Built-in Mic		
20	Audio Compression	G.711a, G.711Mu, PCM, G.726		
21	Bit Rate	H.265: 12 kbps-4096 kbps, H.264: 32 kbps-4096 kbps		
22	Bit Rate Control	CBR/VBR		
23	Human body Detection	Support		
24	Protocol	IPv6, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, RTMP, SMTP, FTP, DHCP, DNS, DDNS, NTP, Multicast, ICMP, IGMP, ONVIF, CGI		
25	Day/Night	Auto(ICR)/Color/B/W		
26	SDK and API	Support		
27	Ethernet	RJ-45 (10/100Base-T)		
28	Alarm Event	Network disconnection, IP conflict, illegal access, motion detection, video tampering, audio detection, security exception, SMD (human)		
29	Cyber Security	Video encryption, Configuration encryption, Digest, WSSE, Account lockout, Security logs, Generation and importing of CA certification, HTTPS, Trusted boot, Trusted execution, Trusted upgrade		
30	User/ Host	6 Users		
31	IR	IR Range of 30 Mtr		
32	Mirror Function	Support		
33	IR Number	1 (Multi-core (IR + warm) light)		
34	Operating Temperature	-40°C to +60°C (-40°F to +140°F)		
35	Operating Humidity	≤95%(RH), non-condensing		
36	Smart IR	Support		
37	Browser	IE, Chrome, Firefox		

23	Protocol	IPv4, IPv6, HTTP, TCP, UDP, ARP, RTP, RTSP, RTCP, RTMP, SMTP, FTP, DHCP, DNS, DDNS, NTP, Multicast, ICMP, IGMP, ONVIF, CGI		
24	Day/Night	Auto(ICR)/Color/B/W		
25	SDK and API	Support		
26	Ethernet	RJ-45 (10/100Base-T)		
27	Alarm Event	Network disconnection, IP conflict, illegal access, Motion detection, Video tampering, Audio detection, Security exception, SMD (human)		
28	Cyber Security	Video encryption, Configuration encryption, Digest, WSSE, Account lockout, Security logs, Generation and importing of CA certification, HTTPS, Trusted boot, Trusted execution, Trusted upgrade		
29	Smart IR	Support		
30	IR	IR Range of 30 Mtr.		
31	Warm Light Range	Warm Light Range of 30 Mtr.		
32	Iris Control	Fixed		
33	IR Control	Auto, Manual		
34	Mirror Function	Support		
35	Audio	Built-in Mic		
36	IR Number	1 (Multi-core (IR + warm) light)		
37	User/Host	6 Users		
38	Browser	IE, Chrome, Firefox		
39	smart phone	iPhone, iPad, Android Phone		
40	Power Source	12 VDC/PoE (802.3af)		
41	Weatherproof Standard	IP67		
42	Operating Temperature	-40°C to +60°C (-40°F to +140°F)		
43	Operating Humidity	≤95% (RH), non-condensing		
44	Casing	Plastic		

64 Ch NVR with 8 SATA Port

Make :-

Model No :-

Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Type of Processor	Industrial-grade processor		
2	IP Camera Channel	64 Channel		
3	Operating System	Embedded Linux		
4	User Interface	Web, Local GUI		
5	Video Output	2 VGA , 2 HDMI		
6	Video Compression	H.265+, H.265, H.264+, H.264, MJPEG		

7	Decoding Capability	2 Channel 32 MP@25 fps, 2 Channel 24 MP@25 fps, 4 Channel 16 MP@30 fps, 5 Channel 12 MP@30 fps, 8 Channel 8 MP@30 fps, 10 Channel 6 MP@30 fps, 12 Channel 5 MP@30 fps, 16 Channel 4 MP@30 fps, 32 Channel 1080p@30 fps		
8	AI by NVR	Face detection, Face recognition, Perimeter protection, SMD Plus		
9	AI by Camera	Face detection, Face recognition, Video metadata (Human, Motor vehicles, Non-motor vehicles), Perimeter protection, SMD Plus, Stereo analysis, Crowd distribution, People counting, ANPR, Vehicle density, Heat map		
10	Resolution	Upto 32 MP Supported		
11	Network Bandwidth	384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing		
12	Audio Input	1-channel RCA		
13	Audio Output	2-channel RCA		
14	Audio Compression	G.711a, G.711u, PCM, G726, AAC		
15	Disk Group	Support		
16	Alarm Input	16 Channel		
17	Alarm Output	8 Channels		
18	Hard Disk	8 SATA ports, each disk can contain up to 20 TB.		
19	Multi-channel Playback	Up to 16 channels		
20	Record Mode	General, Motion detection, Intelligent, Alarm, POS		
21	Backup Method	USB device and network		
22	Playback Mode	Instant playback, General playback, Event playback, Tag playback, Smart playback (face and motion detection)		
23	Smart Phone	iPhone, iPad, Android Phone		
24	RAID	RAID 0/1/5/6/10		
25	Interface Ports	4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports), 1 eSATA Port, 1 RS232, 2 RS485		
26	Protocols	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UDP, SNMP, NTP, DHCP, DNS, SMTP, UPnP, IP Filter, PPPoE, FTP, DDNS, Alarm Server, Multicast, Cloud, Auto Registration, iSCSI, ONVIF 22.06 (Profile T, Profile S, Profile G), CGI, SDK		
27	Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes		

28	Ethernet	2 (10/100/1000 Mbps Ethernet port, RJ-45)		
29	Browser	Chrome, IE, Safari, Edge, Firefox		
30	Power Supply	100-240 VAC, 50-60 Hz		
31	Power Consumption	Total output of NVR is ≤ 13 W (without HDD)		
32	Operating Temperature	-10 °C to +55 °C (14 °F to +131 °F)		
33	Operating Humidity	10%–93% (RH), non-condensing		
34	Storage Temperature	-20 °C to +60 °C (–4 °F to +140 °F)		

Cat 6 Outdoor Cable

Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Conductor	Solid Bare Electrolytic Grade Copper		
2	Conductor Diameter	24 AWG Outdoor		
3	Insulation	Polyethylene (HDPE)		
4	Cross Filler	HDPE		
5	Inner Jacket	PVC		
6	Outer Jacket	PE		
7	Jacket Colour	Black		
8	Pairing	2 insulated conductors twisted together		
9	Jacket(Overall)	PVC		
10	Operating Temperature	-15 to 60°C		
11	Storage Temperature	-15 to 60°C		
12	Approximate OD	5.8mm ± 0.1mm		
13	Impedance	100±15% Ω		
14	Resistance Unbalance	5% Max		
15	Sequential Marking	Every Meter		
16	Packing	305 Mtrs		

8 Port PoE Switch

Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	No of PoE Ports	8 no 1000Mbps		
2	Switch Capacity	24Gbps Full duplex		
3	Uplink Ports	2 x 1000Mbps RJ45 ports + 2 x 1000Mbps SFP ports		
4	PoE Power Budget	96W		

5	Surge Protection	Common mode/RJ45 port: 4KV Differential mode/RJ45 port: 2KV Common mode/Power board: 2K Differential mode/Power board: 2KV		
6	ESD	Air discharge: 8KV Contact discharge: 6KV		
7	Ethernet Port Light	Green light off: Link is disconnected Green light on: Link is connected Green light flash: Data Transmitting		
8	Network Port	12		
9	Transmission Distance	0-100m/1000Mbps or Port 7-8 Max. 250m/10Mbps via Cat.5e or more under Extend mode		
10	PoE Standard	IEEE802.3af, IEEE802.3at		
11	Packet Forwarding Rate	1.488Mpps/port		
12	MAC Address List	2K		
13	Power Source	Input: 100-240V AC, 50/60Hz, Bult-in Power Supply		
14	Power Consumption	<5W		
15	Operating Temperature	-10°C~ 50°C		
16	Humidity	10%-95% , non-condensing		
17	Storage Temperature	-40°C~70°C		

8 Port Networking Switch

Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Network Ports	8 x 10/100/1000/Mbps RJ45 Ports		
2	Switch Capacity	16Gbps		
3	Network Medium	RJ-45		
4	Anti-thunder Level	2KV		
5	Ethernet Port Light	8-Port 10/100/1000Mbps Gigabit Ethernet Switch		
6	Buffer	384Kbyte		
7	Network Port	8 x 10/100/1000/Mbps RJ45 Ports AUTO Negotiation/AUTO MDI/MDIX		
8	Transmission Distance	Upto 100M		
9	Packet Forwarding Rate	11.9Mbps		
10	Power Source	5V DC/1A		
11	Power Consumption	5W		
12	Operating Temperature	0° ~ 40°C (32°F ~ 104°F)		

13	Humidity	10%~90% non-condensing		
14	Storage Temperature	-20°C ~ 70°C		
NAS Storage Device				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Processor	64-bit high-performance multi-core processor		
2	Controller	Single controller		
3	Operating System	Embedded LINUX		
4	Cache	8 GB by default (extendable to 64 GB)		
5	IP Camera Input	320 Channel		
6	User Interface	Web		
7	AI by Camera	Face detection, face recognition, IVS (abandoned object, missing object, loitering, crowd gathering, parking, fence-crossing, fast moving, tripwire and intrusion), video metadata (human, vehicle, non-motor vehicle), vehicle recognition, people counting (fisheye or people counting camera required), face & body detection, crowd distribution, smart thermal (call detection, visible channel- smoking detection, thermal channel-smoking detection)		
8	IP SAN Performance	280-channel × 2 Mbps video stream writing and 24-channel × 2 Mbps video playback (I/O size of VMS is 64 KB) 400-channel × 2 Mbps video stream writing and 24-channel × 2 Mbps video playback (I/O size of VMS is 512 KB)		
9	Thermal Camera Compatibility	Works with camera for fire alarm, temperature alarm, temperature difference alarm, hot spot, cold spot, smoking and calling		
10	People Counting	Works with camera for tripwire people counting, regional people counting and queue people counting		
11	Bullet-PTZ Smart Track	Works with camera for manual tracking, auto tracking, click positioning and select positioning		
12	Fisheye Dewarp	Supports deworming for fisheye cameras		
13	Cluster	N+M		
14	Smart Phone	iPhone, iPad, Android		
15	Video Compression	H.265; Smart H.264+; H.264; MJPEG		

16	Encode Strategy	Insta stream		
17	Audio Compression	G.711A; G.711U; PCM; G726		
18	RAID	RAID 0/1/5/6/10/50/60; (with enterprise-grade HDD)		
19	Video Direct Storage (Private Protocol)	Incoming: 320-channel (bandwidth: 800 Mbps), Recording: 320-channel (bandwidth: 800 Mbps), Outgoing: 320-channel (bandwidth: 800 Mbps), Playback: 32-channel (bandwidth: 64 Mbps)		
20	Video Direct Storage (Onvif)	Incoming: 320-channel (bandwidth: 800 Mbps), Recording: 320-channel (bandwidth: 800 Mbps), Outgoing: 320-channel (bandwidth: 800 Mbps), Playback: 32-channel (bandwidth: 64 Mbps)		
21	Video Direct Storage (Auto Register)	incoming: 320-channel (bandwidth: 800 Mbps), Recording: 320-channel (bandwidth: 800 Mbps), Outgoing: 320-channel (bandwidth: 800 Mbps), Playback: 32-channel (bandwidth: 64 Mbps)		
22	Picture Direct Storage	Incoming: 120-channel (550 KB/picture), Recording: 120-channel (550 KB/picture), Outgoing: 120-channel (550 KB/picture), Playback: 32-channel (550 KB/picture)		
23	Multi-channel Playback	Max. 16-channel playback		
24	Record Mode	Auto record; manual record; search video detection; IO alarm; thermal imaging; intelligent event; all record file		
25	Storage Method	Internal HDD and network disk		
26	Playback Function	Play, pause, stop, fast forward, fast backward, reverse play, frame by frame, Full-screen, backup (clip; file), snapshot, digital zoom, audio on; off		
27	Backup Mode	HDD, peripheral USB storage device		
28	Hard Disk	24 slots, SATA Max.18TB/HDD hot swapping CMR support enterprise-grade HDD		
29	Disk Group	Support		
30	iSCSI	Supports client and Server		
31	Browser	Chrome; PCAPP; IE9 or higher; Firefox		
32	Network Disk	Supports client		

33	Record Management	Supports record control (continuous, event-based, scheduled, scheduled & event-based)		
34	Storage Pool	Support		
35	Network Mode	NIC binding mode such as multiple-address mode, load balance, fault-tolerance, etc.		
36	General Alarm	Motion detects; tampering; IPC external alarm		
37	Anomaly Alarm	IPC offline alarm; storage error; HDD full; video frame loss; SSD exception; IP conflict; MAC conflict; login lock; fan malfunction; no HDD; network security exception; power exception; disk health exception; RAID exception; storage pool exception; temperature alarm; share service		
38	Alarm Linkage	Record; snapshot (full image); alarm uploading; remote device alarm output; camera audio; buzzer; log; preset; email, smart tracking and warning light. Disarming alarm linkage action by period or one-click sync disarm config with channels		
39	Interface Ports	1 eSATA Port, 1 RS232 port, for debug or COM data transmission, 4 ports. 2 USB2.0 ports at the front panel and 2 USB3.0 ports at the rear panel , 1 HDMI Port, only for debug		
40	Ethernet	4 RJ-45 10/100/1000 Mbps self-adaptive Ethernet ports. (gigabit electrical port) 1 RJ-45 10/100 Mbps self-adaptive Ethernet ports. (100 Mbps electrical port)		
41	Protocols	HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; SMTP; NTP; DHCP; DNS; DDNS; P2P; iSCSI; FTP; SMB; NFS; ONVIF (Profile S, T and G); CGI; SDK		
42	Network Port Extension	4 × 1-GbE LAN ports (optional), 2 × 10-GbE optical fiber ports (optional)		
43	Power	1+1 redundant power		
44	Power Supply	100-240 VAC 50-60 Hz		
45	Power Consumption	<100 W (without HDD, idling), <300 W (all HDDs connected)		
46	Operating Temperature	0 °C to 45 °C (+32 °F to +113 °F)		
47	Operating Humidity	10%–80% (RH), non-condensing		
48	Operating Altitude	5000 m		

49	Fan	Intelligent speed regulation fan		
2 U Outdoor Rack				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Wall mount 2U 350D With Front Metal Door Lock & Key; 0.8mm CRCA Sheet(450MM x 350MM)			
9 U Indoor Rack				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Wall mount 9U 500D With Front Glass Door Lock & Key; with toughened glass; 1U cantilever Tray (350mm depth)1Pc ; cooling Fan 1 Pc; PDU 5AMP, 6 socket - 1pc (550MM x 500MM)			
65 Inch LED Display				
Make :-		Model No :-		
Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
1	Screen Size	65 Inch or Higher LED Back Lit Panel		
2	Panel Technology	IPS		
3	Native Resolution	3840 x 2160 (UHD)		
4	Brightness	500cd/m2		
5	Contrast Ratio	1100: 1 or more		
6	Dynamic CR	400, 000: 1 or higher		
7	Orientation	Portrait & Landscape		
8	Viewing Angle (H x V)	178 x 178		
9	Operation Hours	24 Hrs. support		
10	Connectivity			
11	Input Ports			
12	Digital	HDMI (2), DVI-D (1), Display Port (1)		
13	External Control	RS232C (1), RJ45(1), IR (1, Internal)		
14	USB	USB -1		
15	Output Ports			
16	Digital	Display Port -1		
17	External Control	Main : RS232C(1),		
18	AUDIO			
19	Audio Power	20W(10W x 2)		
20	Additional feature	Inbuilt : Wi-Fi, Screen Sharing feature, Web Link, Media Player, Picture in Picture & Picture by Picture feature, SNMP Support,		
21	Power Supply	100 – 240 V, 50/60 Hz		

22	Certifications (Safety/EMC/ER)	UL, FCC, BIS		
23	Warranty	3 years		
24	Wall mount	Required		
25	Authorization	MAF Required		

Optical Fiber Cable

Make :-

Sr No	Feature	Description	Compliance (Yes/No)	Remarks if any
		6 core Armored Optical Fiber Cable		
	1	06/08/12/24-Core, Single mode 9/125-micron primary coated buffers, 10G Ethernet OS2, Armored Loose Tube, ECCS (Electrolytic Chrome Coated Steel) Tape, Jelly Filled Loose Tube.		
	2	Two Steel Wires/Rods embedded in outer periphery of the jacket as strength members. UV Stabilized jacket and protected from Rodent attacks		
	3	Complying to ANSI/TIA-568-C.3, ISO/IEC 11801, Telcordia GR-20 Core, ITU-T REC G.652D, IEC 60793-1/60794-1, EN 50173, RoHS Compliant		
	4	Suitable for use in indoor/outdoor ducts, direct burial and backbone cabling		
	5	Loose tube material : Polybutylene Terephthalate (PBT) with Natural/White Colour having Inner Diameter/Outer Diameter 1.7/2.5 $\pm$ 0.1 mm		
	6	Peripheral strength as two steel wires/rods having dimensions as 0.6 $\pm$ 0.05 mm		
	7	Moisture Barrier as Water Swellable Tape, Armoring $\geq$ 0.150 mm (ECCS Tape), Number of Ripcords as 01 no polyester-based yarns.		
	8	Outer sheath material as HDPE/LSZH with diameter as 7.5/8.5 $\pm$ 0.5 mm having thickness of 1.5mm nominal		
	9	Weight of the cable for 04/06/08/12 core (HDPE/LSZH): 65.0/75.0 $\pm$ 10		

		kg/km, for 24 core (HDPE/LSZH): 75.0/95.0 ± 5 kg/km		
	10	Fiber colour and Loose tube colour as per ANSI/TIA standards.		
	11	Tensile Strength : 1000 N, Crush Resistance : 4000 N/100mm		
	12	Minimum bend radius : 20 x Diameter (during installation), Minimum bend radius : 10 x Diameter (during full load)		
	13	Fiber Type : G. 652D (OS2)		
	14	Attenuation: ≤ 0.38 dB/km. @1310 nm), ≤ 0.25 dB/km (@1550 nm)		
	15	Chromatic Dispersion : ≤ 3.5 ps/nm.km (1285 - 1330 nm), ≤ 18 ps/nm.km (@1550 nm)		
	16	Zero Dispersion Wavelength: 1300 - 1324 nm		
	17	Zero Dispersion Slope: ≤ 0.092 ps/nm ² .km		
	18	Polarisation Mode Dispersion: ≤ 0.2 ps/√km		
	19	Cut-off Wavelength: ≤ 1260 nm		
	20	Mode Field Diameter: 9.2 ± 0.4 μm (@1310 nm), 10.4 ± 0.4 μm (@1550 nm)		
	21	Core Cladding Concentricity Error: ≤ 0.8 μm		
	22	Cladding Diameter: 125 ± 1 μm , Coating Diameter : 245 ± 10 μm		
	23	Cladding Non-circularity: ≤ 1 %		
	24	Installation Temperature: -20 °C to +70° C, Operating Temperature: - 20 °C to +60° C		
	25	Cable Size and Standard Length: 4F to 12F : 4.0 kms ± 10% 24F : 2.0 kms ± 10%		

SFP Module Single mode 1000Base-LX SFP Transceiver LC Type

S/no	Features	Specification	Compliance (Yes/No)	Remarks if any
1	Architecture	1000 Base LX Single-mode Fiber Transceiver		
2	Connector	It should have a duplex LC Connector		
3	Flow control.	Support 802.3x		

4	Mode	9/125 um Single mode Fiber Type up to 20 KM.		
5	Support wavelength	1310nm		
6	Case Operating Temperature:	support up to 0°~70°		
7	Storage Relative Humidity:	support upto 5% to 95%		
8	Warranty	1 Year		
SC/LC based 3 Mtr long fibre Patch Cord Single Mode				
	S/no	Specification	Compliance(Yes/No)	Remarks if any
	1	Fiber optic patch cord with two core (Duplex) / one core (Simplex) fiber cable terminated with SC/LC/ST/FC connector at one end and SC/LC/ST/FC connector at another end.		
	2	The terminated connectors in assemblies are designed and are compatible with industry standards (ANSI/TIA-568-C.3, ISO/IEC 11801).		
	3	Have good geometrical characteristics of apex offset & radius of curvature & fiber height		
	4	100% factory terminated and tested for optical characteristics & fiber end face finish.		
	5	Fiber type G. 652D standard. OS2 (9/125 µm),		
	6	Buffer Diameter: 0.9 ± 0.05 mm, Jacket Thickness : 0.35 ± 0.05 mm, Strength Member as Aramid yarn		
	7	Cable Diameter: 2.0 ± 0.2 (Simplex), 2.0 x 3.8 ± 0.2 (Duplex)		
	8	Jacket colour : Yellow, Jacket Material : LSZH		
	9	Connector Ferrule: Ceramic, Apex Offset should be <50µm, Fiber height should be ±100nm		
	10	Connector Repeatability ≤ 0.2dB with 1,000 times mating cycles.		
	11	Connector cable retention: 50 N (11.24 lbs), Crush resistance : 100N/100mm, Bend Radius: 20 x Diameter of cable		
	12	Attenuation: ≤ 0.36 dB/km (@1310 nm), ≤ 0.25 dB/km (@1550 nm)		

	13	Chromatic Dispersion: ≤ 3.5 ps/nm.km (1285 - 1330 nm), ≤ 18 ps/nm.km (@1550 nm)		
	14	Zero Dispersion Wavelength: 1300 - 1324 nm		
	15	Cut-off Wavelength: ≤ 1260 nm		
	16	Mode Field Diameter: $9.2 \pm 0.4 \mu\text{m}$ (@1310 nm) , $10.4 \pm 0.5 \mu\text{m}$ (@1550 nm)		
	17	Insertion Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : ≤ 0.3 dB Return Loss (@1310 &1550nm) : SM (UPC/PC) Type : SC/LC/ST/FC : ≥ 50 dB		
	18	Insertion Loss (@1310 &1550nm) : SM (APC) Type : SC/LC/ST/FC : ≤ 0.3 dB Return Loss (@1310 &1550nm) : SM (APC) Type : SC / LC / ST / FC : ≥ 60 dB		
	19	Traceability stickers available for product tracking and Interferometry report need to submit		
	20	Standards: IEC 60332-1, ANSI/TIA-568-C.3, ISO/IEC 11801 RoHS Compliant		
	21	Installation Temperature: -20°C to $+70^{\circ}\text{C}$, Operating Temperature : -20°C to $+70^{\circ}\text{C}$		
	22	Available in various lengths in meters		
	23	Product should be Make in India and OEM should have own manufacturing facility in India for 5 Years. The OEM brand should be Indian origin only. OEM should have valid GST number & trade license of Eastern Region. All OFC, UTP cable and accessories should be from same make for better compatibility and management.		

Accessories Items

Sr No	Feature	Description	Compliance(Yes/No)	Remarks if any
17	Splicing Box	Black Box PVC Outdoor for all the Areas for Fiber Joints		

18	Camera PVC Box 5x5" with Connectors	For all the Cameras points & connectors required for wiring		
19	Galvanized metal arm with suitable camera mounting bracket	5 feet Best Quality for cameras mounting along with Brackets		
20	Galvanized metal arm with suitable camera mounting bracket	10 feet For cameras mounting along with Brackets		
21	Installation & Commissioning	Per Camera Wise along with installation & configurations		
22	OFC & Lan cable Laying charges	From Admin Building to all the cameras installation areas		
23	Underground wiring of OFC & CAT6	Digging & Covering by PVC pipe 1.5" including labour & commissioning charges		
24	Electrification near all the switch	Nearby Switch as per required where the switch will be placed		

Place:

Date:

Signature of the Bidder:

Name, Address of the Bidder:

Telephone No.:

PRICE BID

(On the Letterhead of the Bidder)

To,

The Registrar

NUSRL, Ranchi

Sub: Submission of Price Bid towards “Tender for Supply & Installation of CCTV”

Sl no	Item	QTY	Unit Price	Total	Tax	Grand Total
1	2 MP IP Vari Focal Bullet Camera	27				
2	4 MP IP Vari Focal Bullet Camera	17				
3	4 MP IP Bullet Camera	4				
4	4 MP IP Dome Camera	2				
5	64 Ch NVR with 8 SATA Supported	1				
6	Outdoor Cat 6 Cable	3				
7	2 U Outdoor Rack	17				
8	8 Port PoE Switch	18				
9	9 U Rack	1				
10	16 TB HDD	8				
11	8 Port Networking Switch	1				
12	6 Core OFC Cable	3800				
13	SC/LC based 3 Mtr long fibre Patch Cord (3 Mtr. Long)	18				
14	SFP module (Up to 2 Km range)	36				
15	Splicing Box	18				
16	Camera PVC Box 5x5" with Connectors	50				
17	Galvanized metal arm with suitable camera mounting bracket	17				
18	Galvanized metal arm with suitable camera mounting bracket	1				
19	Installation & Commissioning	50				
20	OFC & Lan cable Laying charges	3800				
21	Underground wiring of OFC & CAT6	3500				
22	Electrification nearby all the switch	18				

Backup for 90 days						
1	16 TB HDD (NAS Based)	24				
2	24 Bays NAS Device	1				
3	65 Inch LED Display with HDMI Cable	1				

Note: All price in INR only.

Place:
Date:

Signature of the Bidder:
Name, Address of the Bidder:
Telephone No.: