

**MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY
GORAKHPUR, UTTAR PRADESH**

TENDER DOCUMENT

NOTICE INVITING TENDER THROUGH GEM PORTAL

FOR

**ESTABLISHMENT OF CCTV SURVEILLANCE SYSTEM
consisting
Supply, Installation, Testing, Commissioning and
Configuration of CCTV Camera**

GeM Bid Number: GEM/2026/B/8028894

बिड दस्तावेज़ / Bid Document

बिड विवरण / Bid Details	
बिड बंद होने की तारीख/समय / Bid End Date/Time	09-10-2026 17:00:00
बिड खुलने की तारीख/समय / Bid Opening Date/Time	10-10-2026 17:00:00
बिड पेशकश वैधता (बंद होने की तारीख से) / Bid Offer Validity (From End Date)	90 (Days)
मंत्रालय/राज्य का नाम / Ministry/State Name	Uttar Pradesh
विभाग का नाम / Department Name	Technical Education Department Uttar Pradesh
संगठन का नाम / Organisation Name	N/a
कार्यालय का नाम / Office Name	M M M University Of Technology, Gorakhpur
शिकायत निवारण के संपर्क विवरण / Contact details of Grievance redressal	HOD Email id : hod2.mmmut.gkp@gembuyer.in Buyer Email id: purchaseoffice@mmmut.ac.in
कुल मात्रा / Total Quantity	313
वस्तु श्रेणी / Item Category	Camera for CCTV System (V3) (Q2) , Video Recorder for CCTV System (V2) (Q2) , Television (V3) (Q2)
बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का) / Minimum Average Annual Turnover of the bidder (For 3 Years)	84 Lakh (s)
मूल उपकरण निर्माता का औसत टर्नओवर (गत 3 वर्षों का) / OEM Average Turnover (Last 3 Years)	679 Lakh (s)
उन्हीं/समान सेवा के लिए अपेक्षित विगत अनुभव के वर्ष / Years of Past Experience Required for same/similar service	3 Year (s)
टर्नओवर पात्रता मानदंड / Turnover eligibility criteria	To be verified by the buyer at the time of technical evaluation
एमएसएमई के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / MSE Relaxation for Years of Experience and Turnover	No
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / Startup Relaxation for Years of Experience and Turnover	No

बिड विवरण/Bid Details	
विक्रेता से मांगे गए दस्तावेज़/Document required from seller	Experience Criteria,Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,OEM Annual Turnover,Additional Doc 1 (Requested in ATC),Compliance of BoQ specification and supporting document *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेज़ों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ मेनू है/Do you want to show documents uploaded by bidders to all bidders participated in bid?	Yes (Documents submitted as part of a clarification or representation during the tender/bid process will also be displayed to other participated bidders after log in)
बिड लगाने की समय सीमा स्वतः नहीं बढ़ाने के लिए आवश्यक बिड की संख्या। / Minimum number of bids required to disable automatic bid extension	3
दिनों की संख्या, जिनके लिए बिड लगाने की समय-सीमा बढ़ाई जाएगी। / Number of days for which Bid would be auto-extended	3
ऑटो एक्सटेंशन अधिकतम कितनी बार किया जाना है। / Number of Auto Extension count	1
विगत प्रदर्शन /Past Performance	80 %
बिड से रिवर्स नीलामी सक्रिय किया/Bid to RA enabled	Yes
रिवर्स नीलामी योग्यता नियम/RA Qualification Rule	H1-Highest Priced Bid Elimination
बिड का प्रकार/Type of Bid	Two Packet Bid
प्राथमिक उत्पाद श्रेणी/Primary product category	Camera for CCTV System (V3)
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय /Time allowed for Technical Clarifications during technical evaluation	2 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)	No
अनुमानित बिड मूल्य / Estimated Bid Value	16987803
मूल्यांकन पद्धति/Evaluation Method	Total value wise evaluation
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

ईएमडी विवरण/EMD Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
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ईएमडी राशि/EMD Amount	169878
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ईपीबीजी विवरण /ePBG Detail

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईपीबीजी प्रतिशत (%) /ePBG Percentage(%)	3.00
ईपीबीजी की आवश्यक अवधि (माह) /Duration of ePBG required (Months).	38

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित कैटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने है। एमएसई कैटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b).ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

(c).ईएमडी और संपादन जमानत राशि लाभार्थी के पक्ष में होनी चाहिए। / Earnest Money Deposit (EMD) shall also be accepted by the buyer in the form of a surety bond.

लाभार्थी /Beneficiary :

Finance Controller

M M M University Of Technology, Gorakhpur, Technical Education Department Uttar Pradesh, N/A,
(Vinay Kumar Rai)

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

एमएसई खरीद वरीयता/MSE Purchase Preference

एमएसई खरीद वरीयता/MSE Purchase Preference	No
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एमआईआई खरीद वरीयता/MII Purchase Preference

एमआईआई खरीद वरीयता/MII Purchase Preference	No
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1. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

2. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM of the product offered in the bid {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts and delivery

acceptance certificates like CRAC to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.

3. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

4. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

5. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 80% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

6. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- If number of technically qualified bidders are only 2 or 3.
- If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

Pre Bid Detail(s)

मूल्य भिन्नता खंड दस्तावेज़/Pre-Bid Date and Time	प्री-बिड स्थान/Pre-Bid Venue
28-09-2026 15:00:00	Board Room, Atal Bhawan, Madan Mohan Malaviya University of Technology Gorakhpur Uttar Pradesh 273010

Camera For CCTV System (V3) (163 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

[* जेम केटेगरी विशिष्टि के अनुसार / As per GeM Category Specification](#)

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Generic	PTZ Camera / Speed Dome Camera	No
	Type of Camera Housing	Dome Camera
	IP Camera	Yes
	Camera Image Sensing capacity	4MP (2560x1440) or better

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
	Maximum Frame Rates(frames per second) Supported	25/30, 50/60 Or higher
	Number of simultaneous video Streams	Quad Stream(Full/Compressed)
	Image Sensor Size (Inch)	1/2.8 to 1/2.3, 1/2.2 - 1/1.7 Or higher
	IR illumination Range(meter)	31-50, 51-70, 71-100, 101-200, 201-300, 301-400, 401-500, 501-600 Or higher
Construction	Installation Type/ Area of use	Indoor
Optics/ Performance	Lens Type	Varifocal Motorized
	Focal Length for Fixed / Fisheye Lens Type (mm)	NA (being varifocal Lens)
	Focal Length for Varifocal Lens Type (mm)	Max 12 mm or better
	Optical Zoom	more than 3X - 5X, more than 5X - 8X, more than 8X - 12X, more than 12X - 16X, more than 16X - 20X, more than 20X - 25X, more than 25X - 30X, more than 30X - 35X, more than 35X - 40X, more than 40X - 45X, more than 45X - 50X Or higher
Network And Interface	Type of network required to transmit video / Image recorded by camera	Wired
Storage	On Board SD Card Support	Yes
	SD Card Capacity	512 GB, 1 TB Or higher
Warranty / Service	Comprehensive Warranty (Year)	2, 3, 4, 5 Or higher
Certification / Test Report	Availability of security testing report for CCTV/VSS issued by Standardization Testing and Quality Certification (STQC) Laboratory or any other agency notified by Meity or BIS certificate indicating ER	Yes (Complying to the requirement of clause 5 of S.O. 1119 (E) on the subject: Public Procurement (Prefence to make in India) Order 2017-Notifying CCTV/Video Surveillance System for Security in furtherance of the order at dated 6th March, 2024 or Latest)
	BIS Registration (CRS) for safety general requirements as per IS 13252 (Part 1):latest indicating ER (for CCTV Camera)	Yes

Additional Specification Parameters - Camera For CCTV System (V3) (163 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-1	Image Sensor : 1/2.7" 4MP PS CMOS Image Sensor with minimum 2688 (H) × 1520 (V) pixels; Minimum Illumination : 0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on); Shutter Speed : Auto/Manual 1/3 s-1/100,000 s; White Balance : Auto, Natural, Street lamp, Outdoor, Manual, Regional custom; DORI Distance : 60 m (Detect), 20 m (Observe), 10 m (Recognize), 6 m (Identify); Features : WDR(120dB), Day/Night(ICR), 3D NR, ROI, AWB, AGC, BLC, HLC, Digital watermarking;
Technical Specification-2	Optics: 2.7mm~13.5mm Motorized Lens with close focus distance of 0.8 m & H: 97°-28°, V: 52°-16°, D: 117°-32°; Video Compression: Instastream, H.265, H.264, H.264H, H.264B; IR : IR Range of 50mtr; Frame Rate:Main stream: 4MP (2688 × 1520)@1-25/30fps, (2560 × 1440)@1-25/30fps, 3MP (2304 × 1296)@1-25/30fps,1080P (1920×1080)@1-25/30fps Sub stream1: D1 (704 × 576/ 704 × 480)@1-25/30fps, Sub stream2: D1 (704 × 576/ 704 × 480)@1-25/30fps Sub stream3: D1 (704 × 576/ 704 × 480)@1fps;
Technical Specification-3	S/N Ratio:>58 dB; Privacy Mask : 4 Areas; IVS(Perimeter Protection) : Tripwire, Intrusion, IMD; OSD : Camera title, Date & Time; Audio & Compression with Audio I/O : Built-in Mic, 1in/1out Channel (RCA port) having G.711a, G.711Mu, G.726, PCM, AAC compressions ; Alarm IN / Out : 1 Channel in: 5 mA 3-5 VDC , 1 Channel out: 300 mA 12 VDC; Bit Rate : H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps with CBR & VBR control; Protocol : All necessary protocols as per the STQC guidelines;
Technical Specification-4	SDK and API : Support; Ethernet : RJ-45 (10/100 Base-T); Mirror Function : Support; Noise Reduction : 3D NR; Motion detection : OFF/ON (4 areas, rectangular); Storage : SFTP, Mirco SD card (Max. 512GB); 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,; : IMD (Intelligent motion detection), Security exception, External alarm; Iris Control : Fixed
Technical Specification-5	Cyber Security:AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot;Image Rotation: 0°/90°/180°/270° (Support 90°/270° with 2M resolution and lower); User/Host:6 (Total bandwidth:36 M); Certificates: ISO 9001:2015,ISO 20000-1:2018,CE,FCC and RoHS,BIS,STQC approved compliance report; Power Consumption: Basic: 1.6 W (12VDC), 2.1 W(PoE)

* Bidders offering must also comply with the additional specification parameters mentioned above.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	163	15

Camera For CCTV System (V3) (128 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

* जेम कैटेगरी विशिष्टि के अनुसार / As per GeM Category Specification

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Application	Intended Application	CCTV cameras are used for surveillance and security across various settings like residential areas, commercial buildings, and public spaces. it helps in monitor traffic, enhance public safety, homes, offer remote monitoring, aid environmental monitoring
Generic	PTZ Camera / Speed Dome Camera	No
	Type of Camera Housing	Bullet Camera
	IP Camera	Yes
	Camera Image Sensing capacity	4MP (2560x1440) or better
	Maximum Frame Rates(frames per second) Supported	25/30, 50/60 Or higher
	Number of simultaneous video Streams	Quad Stream(Full/Compressed)
	Image Sensor Size (Inch)	1/2.8 to 1/2.3, 1/2.2 - 1/1.7 Or higher
	IR illumination Range(meter)	51-70, 71-100, 101-200, 201-300, 301-400, 401-500, 501-600 Or higher
Construction	Installation Type/ Area of use	Outdoor
Optics/ Performance	Lens Type	Varifocal Motorized
	Focal Length for Fixed / Fisheye Lens Type (mm)	NA (being varifocal Lens)
	Focal Length for Varifocal Lens Type (mm)	Max 12 mm or better
	Optical Zoom	more than 3X - 5X, more than 5X - 8X, more than 8X - 12X, more than 12X - 16X, more than 16X - 20X, more than 20X - 25X, more than 25X - 30X, more than 30X - 35X, more than 35X - 40X, more than 40X - 45X, more than 45X - 50X Or higher
Network And Interface	Type of network required to transmit video / Image recorded by camera	Wired
Storage	On Board SD Card Support	Yes
	SD Card Capacity	512 GB, 1 TB Or higher
Warranty / Service	Comprehensive Warranty (Year)	3, 4, 5 Or higher

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Certification / Test Report	Availability of security testing report for CCTV/VSS issued by Standardization Testing and Quality Certification (STQC) Laboratory or any other agency notified by Meity or BIS certificate indicating ER	Yes (Complying to the requirement of clause 5 of S.O. 1119 (E) on the subject: Public Procurement (Preference to make in India) Order 2017-Notifying CCTV/Video Surveillance System for Security in furtherance of the order at dated 6th March, 2024 or Latest)
	BIS Registration (CRS) for safety general requirements as per IS 13252 (Part 1):latest indicating ER (for CCTV Camera)	Yes

Additional Specification Parameters - Camera For CCTV System (V3) (128 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-1	Image Sensor : 1/2.7" 4MP PS CMOS Image Sensor with minimum 2688 (H) × 1520 (V) pixels ; Minimum Illumination : 0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on) ; Shutter Speed : Auto/Manual 1/3 s-1/100,000 s ; White Balance : Auto, Natural, Street lamp, Outdoor, Manual, Regional custom ; DORI Distance : 60 m (Detect), 20 m (Observe), 10 m (Recognize), 6 m (Identify) ;
Technical Specification-2	Features : WDR(120dB), Day/Night(ICR), 3D NR, ROI, AWB, AGC, BLC, HLC, Digital watermarking ; Optics : 2.7mm~13.5mm Motorized Lens with close focus distance of 0.8 m & H: 97°-28°, V: 52°-16°, D: 117°-32° ; S/N Ratio : >58 dB ; Video Compression : Instastream, H.265, H.264, H.264H, H.264B ; IR : IR Range of 50mtr ;
Technical Specification-3	Frame Rate : Main stream: 4MP (2688 × 1520)@1-25/30fps, (2560 × 1440)@1-25/30fps, 3MP (2304 × 1296)@1-25/30fps,1080P (1920 × 1080)@1-25/30fps Sub stream 1: D1 (704 × 576/ 704 × 480)@1-25/30fps, Sub stream 2: D1 (704 × 576/ 704 × 480)@1-25/30fps Sub stream 3: D1 (704 × 576/ 704 × 480)@1fps ; Privacy Mask : 4 Areas ; IVS(Perimeter Protection) : Tripwire, Intrusion, IMD ; OSD : Camera title, Date & Time ; Alarm IN / Out : 1 Channel in: 5 mA 3-5 VDC , 1 Channel out: 300 mA 12 VDC ;
Technical Specification-4	Audio & Compression with Audio I/O : Built-in Mic, 1in/1out Channel (RCA port) having G.711a, G.711Mu, G.726, PCM, AAC compressions ; Bit Rate : H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps with CBR & VBR control Protocol : All necessary protocols to run the system as per the STQC guidelines ; SDK and API : Support ; Ethernet : RJ-45 (10/100 Base-T) ; Mirror Function : Support ; Noise Reduction : 3D NR ; Motion detection : OFF/ON (4 areas, rectangular) ;

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-5	Storage : SFTP, Mirco SD card (Max. 512GB) ; 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, IMD (Intelligent motion detection), Security exception, External alarm ; Iris Control : Fixed ; Certificates: ISO 9001: 2015, ISO 20000-1 : 2018, CE, FCC and RoHS, BIS, STQC approved compliance report User/Host : 6 (Total bandwidth: 36 M);

* Bidders offering must also comply with the additional specification parameters mentioned above.

प्रेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	प्रेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	128	15

Video Recorder For CCTV System (V2) (10 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

[* जेम केटेगरी विशिष्टि के अनुसार / As per GeM Category Specification](#)

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Generic	Type of Recorder	NVR
Performance	Total Number of Input Channels	16
	Number of IP based Video input Channels	16
	Maximum Recording Resolution supported	12 MP (4000 X 3000) Or higher
	Recording Speed for all channels (fps)	Upto 25, Upto 30, Upto 50, Upto 60 Or higher
Alarm	Alarm Input	16
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Linux
STORAGE	Internal Hard Drive Interface	SATA II

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Salient Features	Video Content Analytics (VCA)	Motion Detection, Crossing line, Intrusion Detection, Face Recognition, Tampering, Video Loss, Digital Zoom 12X and more, VIDEO MOTION, SERIAL PORT, IP CAMERA CONNECTION, SECURITY INTEGRATION ALARM, DWELL, PERIMETER, OBJECT DETECTION
Buyer Specific Requirements	valid BIS certificate as per IS 13252 under CRS	Yes (required)
WARRANTY / SERVICES	Warranty	2year, 3year Or higher

Additional Specification Parameters - Video Recorder For CCTV System (V2) (10 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-1	Industrial-grade processor; IP Camera Input : 16 Channels; Operating System : Embedded LINUX; User Interface : Web, Local GUI; Video Output : 2 VGA & 2 HDMI; Video Compression : Instastream, H.265, H.264+, H.264, MJPEG; Decoding Capability : AI disabled: 16 Channel 4MP@30 fps; : AI enabled: 12 Channel 4MP@30 fps; AI by NVR : Face detection, Face recognition, Perimeter protection, IMD+; IntelliCheck AI by Camera + Recorder: Max. 16 Channel, 1 combined event per Channel/s;
Technical Specification-2	Resolution : 32MP,24MP,16MP,12MP,8MP,6MP,5MP,4MP,3MP,2MP,720p,960p,D1,CIF,QCIF ; Network Bandwidth : AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing, AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing; Video Display Split : Main screen: 1/4/8/9/16, Subscreen: 1/4/8/9/16; Perimeter Performance AI by ;NVR (Number of Channels): 4 Channels, 10 IVS rules for each Channel; Face Attributes : Gender, Age group, Glasses, Expressions, Face mask, Beard;
Technical Specification-3	Audio Input/Output : 1 Channel RCA/2 Channels RCA; Audio Compression : G.711a, G.711u, PCM, G726, AAC; Disk Group : Support; Alarm Input/Output : 16 Channels/8 Channels (1 Channel 12 V 1 A output); Hard Disk : 8 SATA ports, each disk can contain up to 20 TB ; Multi-channel Playback : Up to 16 Channels; Record Mode : General, Motion detection, Intelligent, Alarm, POS; Backup Method : USB device and network; Playback Mode : Instant and General playback, Event and Tag playback, Smart playback;
Technical Specification-4	Network Protocols : All necessary protocols as per the STQC guidelines; RAID : RAID 0/1/5/6/10; Interface Ports : 4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports), 1 eSATA Port, 1 RS232, 2 RS485 (1 port for half-duplex serial communication, 1 port for full-duplex serial communication); Network Mode : Multi-address mode, load balance, fault tolerance and other network port binding modes; Ethernet : 2 (10/100/1000 Mbps Ethernet port, RJ-45);
Technical Specification-5	Face Detection Performance of AI by Recorder (Number of Channels) : 2 Channels (up to 12 face images/s each Channel); Face Database Capacity : Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, Gender, Birthday, Address, Credential type, Credential No., Countries & Regions and state can be added to each face image; Power Supply : 100-240 VAC, 50-60 Hz; Power Consumption : Total output of NVR is ? 13 W (without HDD)

* Bidders offering must also comply with the additional specification parameters mentioned above.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	10	15

Video Recorder For CCTV System (V2) (2 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

* जेम केटेगरी विशिष्टि के अनुसार / As per GeM Category Specification

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Generic	Type of Recorder	NVR
Performance	Total Number of Input Channels	32
	Maximum Recording Resolution supported	12 MP (4000 X 3000) Or higher
	Supported Compression Technique	H.264, H.265
	Recording Speed for all channels (fps)	Upto 30, Upto 50, Upto 60 Or higher
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Linux
STORAGE	Internal Hard Drive Interface	SATA III
Salient Features	Video Content Analytics (VCA)	Trip-wire Detection, Motion Detection, Intrusion Detection, Face Recognition, PERIMETER, OBJECT DETECTION
Buyer Specific Requirements	valid BIS certificate as per IS 13252 under CRS	Yes (required)
WARRANTY / SERVICES	Warranty	2year, 3year Or higher

Additional Specification Parameters - Video Recorder For CCTV System (V2) (2 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-1	Industrial-grade processor;Operating System : Embedded LINUX;User Interface : Web, Local GUI;Video Output : 2 VGA & 2 HDMI;Video Compression : Instastream, H.265, H.264+, H.264, MJPEG;Decoding Capability : AI disabled: 16 Channel 4 MP@30 fps, 32 Channel 1080p@30 fps AI enabled: 12 Channel 4 MP@30 fps, 24 Channel 1080p@30 fps;AI by NVR : Face detection, Face recognition, Perimeter protection, IMD+;IntelliCheck AI by Camera + Recorder : Max. 32 Channel, 1 combined event per Channel/s;
Technical Specification-2	Resolution : 32MP,24MP,16MP,12MP,8MP,6MP,5MP,4MP,2MP, 720p, 960p, D1, CIF, QCIF;Network Bandwidth : AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing;Video Display Split : Main screen: 1/4/8/9/16/25/36, Sub screen: 1/4/8/9/16;Perimeter Performance AI by NVR (Number of Channels) : 4 Channels, 10 IVS rules for each Channel;Face Attributes : Gender, Age group, Glasses, Expressions, Face mask, Beard;
Technical Specification-3	Audio Input : 1 Channel RCA;Audio Output : 2 Channel RCA;Audio Compression : G.711a, G.711u, PCM, G726, AAC;Disk Group : Support;Alarm Input : 16 Channel;Alarm Output : 6 Channels (1Channel 12V 1A output);Hard Disk:4 SATA ports, each disk can contain up to 20 TB;Multi-channel Playback : Up to 16 Channels;Record Mode :General, Motion detection, Intelligent, Alarm, POS;Backup Method : USB device and network; Interface Ports : 3USB, 1RS232, 1eSATA Port, 1RS485 (half-duplex serial communication)
Technical Specification-4	Protocols : All necessary protocols as per the STQC guidelines;Network Mode : Multi-address mode, Load balance, Fault tolerance and other network port binding modes;Ethernet : 2 (10/100/1000 Mbps Ethernet port, RJ-45);Power Supply : 100-240 VAC, 50-60 Hz; Power Consumption : Total output of NVR is ? 13 W (without HDD);Operating Temperature : As per the enviromental conditions ;Operating Humidity : 10%-93% (RH),
Technical Specification-5	Face Detection Performance of AI by Recorder (Number of Channels) : 2 Channels (up to 12 face images/s each Channel);Face Database Capacity : Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added;to each face image; General Alarm : Motion detection, Local alarm, Alarm box, Camera external alarm, Network alarm, Scene changing, PIR alarm, Thermal alarm

* Bidders offering must also comply with the additional specification parameters mentioned above.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	2	15

Video Recorder For CCTV System (V2) (4 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

* जेम कैटेगरी विशिष्टि के अनुसार / As per GeM Category Specification

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Generic	Type of Recorder	NVR
Performance	Total Number of Input Channels	64
	Maximum Recording Resolution supported	12 MP (4000 X 3000) Or higher
	Recording Speed for all channels (fps)	Upto 25, Upto 30, Upto 50, Upto 60 Or higher
Alarm	Alarm Input	16
	Alarm Output	8
NETWORK PROTOCOLS / INTERFACE / OPERATING SYSTEM	Operating System Supported	Linux
STORAGE	Internal Hard Drive Interface	SATA II
Salient Features	Video Content Analytics (VCA)	Motion Detection, Crossing line, Intrusion Detection, Face Recognition, Tampering, Video Loss, Digital Zoom 12X and more, VIDEO MOTION, SERIAL PORT, IP CAMERA CONNECTION, SECURITY INTEGRATION ALARM, DWELL, PERIMETER, OBJECT DETECTION, POINT OF SALE
Buyer Specific Requirements	valid BIS certificate as per IS 13252 under CRS	Yes (required)
WARRANTY / SERVICES	Warranty	2year, 3year Or higher

Additional Specification Parameters - Video Recorder For CCTV System (V2) (4 pieces)

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-1	Industrial-grade processor;IP Camera Input: 64 Channel;Operating System: Embedded LINUX;User Interface: Web, Local GUI;Video Output: 2VGA & 2HDMI;Video Compression :Instastream,H.265, H.264+, MJPEG;Decoding Capability: AI disabled: 16Channel 4MP@30 fps, 32Channel 1080p@30 fps; : AI enabled: 12 Channel 4MP@30 fps, 24Channel 1080p@30 fps ;AI by NVR:Face detection and recognition, Perimeter protection, SMD Plus;IntelliCheck AI by Camera + Recorder : Max. 32Channel, 1 combined event per Channel/s

Specification Parameter Name	Bid Requirement (Allowed Values)
Technical Specification-2	Resolution :32MP,24MP,16MP,12MP,8MP,6MP,5MP,4MP,3MP,2MP,720p, 960p, D1, CIF, QCIF;Network Bandwidth : AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing, AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing;Video Display Split : Main screen: 1/4/8/9/16/25/36/64, Sub screen: 1/4/8/9/16;Perimeter Performance AI by NVR (Number of Channels) : 4 Channels, 10 IVS rules for each Channel;Face Attributes : Gender, Age group, Glasses, Expressions, Face mask, Beard
Technical Specification-3	Network Protocols : All necessary protocols to run the system as per the STQC guidelines;Network Mode : Multi-address mode, load balance, fault tolerance and other network port binding modes;Ethernet : 2 (10/100/1000 Mbps Ethernet port, RJ-45);Power and other compatibility : ;Power Supply : 100-240 VAC, 50-60 Hz;Power Consumption : Total output of NVR is ? 13 W (without HDD);Operating Temperature : As per the environmental conditions ;Operating Humidity : 10%-93% (RH), non-condensing
Technical Specification-4	Face Detection Performance of AI by Recorder (Number of Channels) : 2 Channels (up to 12 face images/s each Channel);Face Database Capacity : Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image; Human Attributes : Top color, Top type, Bottom color, Bottom type, Hat, Bag, Age, Gender and Umbrella
Technical Specification-5	Audio Input : 1 Channel RCA; Audio Output : 2 Channel RCA;Audio Compression : G.711a, G.711u, PCM, G726, AAC;Disk Group : Support;Alarm Input : 16 Channel;Alarm Output : 8 Channels (1-channel 12 V 1 A output);Hard Disk : 8 SATA ports, each disk can contain up to 20 TB. This limit varies depending on the environment temperature;Multi-channel Playback : Up to 16 Channels;Record Mode : General, Motion detection, Intelligent, Alarm, POS;Backup Method : USB device and network

* Bidders offering must also comply with the additional specification parameters mentioned above.

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	4	15

Television (V3) (6 pieces)

Bis Required	Yes
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तकनीकी विशिष्टियाँ /Technical Specifications

[* जेम कैटेगरी विशिष्टि के अनुसार / As per GeM Category Specification](#)

विवरण/Specification	विशिष्टि का नाम /Specification Name	बिड के लिए आवश्यक अनुमत मूल्य /Bid Requirement (Allowed Values)
Product Characteristics	Duty Cycle of Product (Number of operation hours per day X number of days in week)	16 x 7
	Native Resolution of Display (Pixels)	Ultra HD (3840 x 2160)
	BEE Star Rating of the product	3 Star, 4 Star, 5 Star Or higher
Display Characteristics	Diagonal Display Size (in inches)	Between 60 and 70 (152.4 and 177.8 cm)
	Display Technology	LCD (Liquid Crystal Display), LED (Light Emitting Diode)
	Type of Backlight in LCD / Type of LED in Display Technology	Edge-lit LED, Direct-lit LED, Full-array LED, OLED (Organic LED)
	Peak display brightness in product (in nits)	Between 300 and 400

परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Rohit Kumar Tiwari	273010,M M M University of Technology, Deoria Road, Gorakhpur	6	15

Buyer added Bid Specific Additional Scope of Work

क्र.सं./S.No.	Document Title	Description	रिवर्स प्रभार के अनुसार जीएसटी/Applicable i.r.o. Items
1	Scope of Work along with other product required View	Scope of Work and List of all products for procurement along with their technical specifications	Camera For CCTV System (V3) (163),Camera For CCTV System (V3)(128),Video Recorder For CCTV System (V2)(10),Video Recorder For CCTV System (V2) (2),Video Recorder For CCTV System (V2)(4),Television (V3)(6)

The uploaded document only contains Buyer specific Additional Scope of Work and / or Drawings for the bid items added with due approval of Buyer's competent authority. Buyer has certified that these additional scope and drawings are generalized and would not lead to any restrictive bidding.

Special terms and conditions-Version:2 effective from 18-02-2025 for category Camera for CCTV System (V3)

1. **1. Note to Buyers:**

- a. The Central Ministries/ Departments and other government buyers as applicable shall take cognizance of "Public Procurement (Preference to Make in India) Order 2017-Notifying CCTV/ Video Surveillance dated 6th March 2024, System for Security in furtherance of the Order" 5 " while procuring The surveillance devices i.e., CCTV Cameras (Analog/ IP/ Analog Speed Dome/ IP Speed Dome) should comply with the Essential Requirements (ERs) for security prescribed by MeitY to ensure the security of the VSS / CCTV systems, as per the Appendix 'A', as amended from time to time. The security testing report for CCTV/VSS is to be issued by the Standardisation Testing and Quality Certification (STQC) Laboratory or any other agency notified by MeitY from time to time. The validity of the test report issued by STQC Lab will be three years from the date of issue of the report. These Essential Requirements (ERs) for security of CCTV Cameras/VSS system will be enforced after 3 months from the date of issuance of this Notification. The security norms for the DVR and NVR will be notified subsequently." Accordingly, compliance regarding security testing report for CCTV/VSS issued by Standardization Testing and Quality Certification (STQC) Laboratory or any other agency notified by MeitY shall be ensured before accepting/releasing CRAC of the supplied stores. **Please note that the certified product list meeting Essential Requirements (ERs) is available at-<https://www.stqc.gov.in/iot-system-certification-scheme-iotscs-0>**
- b. Buyers are also expected to strictly ensure compliance with the MHA advisory issued by O.M. IV-24011/22/2020-Prov-I/270 dated 26 April 2024. Where in inter alia following is stipulated.
 - i. All Government agencies are advised that henceforth they may procure their CCTVs and allied solutions and hardware based on the Public Procurement Order 2017 and ensure the security of CCTV systems as mentioned in the above-mentioned notifications.
 - ii. Further, MeitY has issued an Advisory vide O.M. dated W-43/11/2021-IPHW dated 11 March 2024 on the Threat of Information through CCTV/Video Surveillance System (VSS)/Digital Video Recorders/Network Video Recorders. All Government agencies are advised to adhere to the guidelines outlined within the ambit of the Public Procurement Orders to safeguard the overall security and integrity of CCTV Cameras.
 - iii. Additionally, further notification from relevant government department or ministry pertaining to the aforementioned PPO is to be complied with.
- c. Buyer is expected to apply all relevant filters against "Golden/Filterable" parameters to clearly define their technical requirements.
 - i. **For Procurement through BID/RA:** -One and only one value to be specified by the buyer against "Golden" parameters. Selecting "Any value" against GOLDEN parameters may result in incomplete specification in the bid and finally result in a vague contract. Accordingly any bid not having specific value against the GOLDEN parameters resulting in limited competition or higher cost to the exchequer or incomplete/ vague contract, the Buyer shall be solely responsible.
 - ii. **For Procurement through DIRECT/L1:**Buyers are advised to apply filters/ selections allowing all the values that are considered meeting or are better than their technical requirements. For any violation of the above, if resulting in limited competition or higher cost to the exchequer, the Buyer shall be solely responsible.
- d. Buyer intending to buy Camera for CCTV System (V2) with optional accessories, and optional features shall use BID/RA. These optional kind of parameters are multi-select for the seller, the buyer shall stipulate/select only required accessories in their bid/RA. The required accessories as per bid/RA shall only be verified before accepting the stores. This is to ensure strict compliance of supplied stores to the bid requirement including ATC if any. However, the contract generated may have mentioned accessories other than the bid/RA requirement due to the fact that the contract gets generated based on the catalog uploaded by the OEM/seller. This type of optional parameter is to enable the seller without creating multiple catalogs for given base models having capabilities to be upgraded.
- e. Direct/L1 procurement with a selection of optional accessories will not be covered in supply through their names/ offer may be appearing in the contract but seller/supplier do not supply the same being optional and the buyer has not exercised their right to choose by specifying the same in bid/RA.
- f. Buyer shall also refer to GTC Clause 4. xiii.(w). The ATC / additional specification if any added by the buyer shall not be contradictory to the GeM category specifications / technical particulars (TP).
- g. Buyer/ consignee shall verify all the parameters/ specification including the specification

- which are to be as per the OEM brochure before issuing CRAC.
- h. The consignee is also required to verify the mandatory (CRS) BIS registration of the supplied stores to the IS 13252 Part 1 (2010) before accepting/ CRAC.
2. **Note to Sellers:-**
- Seller may refer to GTC and ensure strict compliance of the uploaded/offered product which shall be in line with their model having the claimed specifications or better.
 - In case the seller's declared values are contradictory to the specifications provided elsewhere in the TP; the specification claimed in the TP shall supersede the seller's declared values.
 - Also, the same model shall not be uploaded across catalogs with unreasonable/ contradictory offerings.
 - In case any discrepancy is observed in the offered/ uploaded products, the OEM dashboard of the respective Brand may be removed, and the account shall be suspended as per IM policy.

Special terms and conditions-Version:1 effective from 09-09-2024 for category Video Recorder for CCTV System (V2)

1. Note to Buyers:

The Central Ministries/ Departments and other government buyers, as applicable, shall note that this category is covered under Scheme - II (Compulsory Registration Scheme) of BIS (Bureau of Indian Standards).

Compulsory registration of goods / articles in this category shall conform to IS 13252 (Part - 1) and shall bear the "Standard Mark" under a license from Bureau of Indian Standards as per Scheme-II of Schedule-II of Bureau of Indian Standards(Conformity Assessment) Regulations,2018.

Buyer shall verify and confirm compliance with the applicable BIS order during the procurement and fulfilment process.

Note to Sellers:

Sellers shall offer and supply products conforming to the corresponding Indian Standard and mandatorily registration as per Scheme-2 of BIS.

Non-compliance shall result in action as per GeM IM policy.

Buyers and sellers may refer to the relevant S.O at <https://www.bis.gov.in/product-certification/products-under-compulsory-certification/scheme-ii-registration-scheme/>

क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/Buyer Added Bid Specific Terms and Conditions

1. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$, subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

2. Generic

Bidder financial standing: The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.

3. Generic

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers

can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

4. **Generic**

Manufacturer Authorization:Wherever Authorised Distributors/service providers are submitting the bid, Authorisation Form /Certificate with OEM/Original Service Provider details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the bid

5. **Scope of Supply**

Scope of supply (Bid price to include all cost components) : Supply Installation Testing and Commissioning of Goods

6. **Turnover**

Bidder Turn Over Criteria: The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

7. **Turnover**

OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria. In case of bunch bids, the OEM of CATEGORY RELATED TO primary product having highest bid value should meet this criterion.

8. **Service & Support**

Availability of Service Centres: Bidder/OEM must have a Functional Service Centre in the State of each Consignee's Location in case of carry-in warranty. (Not applicable in case of goods having on-site warranty). If service center is not already there at the time of bidding, successful bidder / OEM shall have to establish one within 30 days of award of contract. Payment shall be released only after submission of documentary evidence of having Functional Service Centre.

9. **Service & Support**

Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.

10. **Service & Support**

Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.

11. **Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

12. **Warranty**

Warranty period of the supplied products shall be 3 years from the date of final acceptance of goods or after completion of installation, commissioning & testing of goods (if included in the scope of supply), at consignee location. OEM Warranty certificates must be submitted by Successful Bidder at the time of

delivery of Goods. The seller should guarantee the rectification of goods in case of any break down during the guarantee period. Seller should have well established Installation, Commissioning, Training, Troubleshooting and Maintenance Service group in INDIA for attending the after sales service. Details of Service Centres near consignee destinations are to be uploaded along with the bid.

13. **Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Account Payee Demand Draft also (besides PBG which is allowed as per GeM GTC). DD should be made in favour of

Finance Controller, MMMUT Gorakhpur
payable at
Gorakhpur

. After award of contract, Successful Bidder can upload scanned copy of the DD in place of PBG and has to ensure delivery of hard copy to the original DD to the Buyer within 15 days of award of contract.

14. **Forms of EMD and PBG**

Bidders can also submit the EMD with Account Payee Demand Draft in favour of

Finance Controller, MMMUT Gorakhpur
payable at
Gorakhpur

. Bidder has to upload scanned copy / proof of the DD along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date / Bid Opening date.

15. **Generic**

Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 2 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

16. **Generic**

OPTIONAL SITE VISIT:

1. The Bidder is advised to visit and examine the installation site and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid. The costs of visiting the site shall be borne by the Bidder.

Yes

2. The Bidder representative shall be allowed entry upon consignee premises for such visits, only upon the express conditions that the Bidder will release and indemnify the Buyer and Consignee against all liabilities arising out of such visit including death or injury, loss or damage to property, and any other loss, damage, costs, and expenses incurred as a result of such visit.

3. The Bidder shall not be entitled to hold any claim against Buyer for noncompliance due to lack of any kind of pre-requisite information as it is the sole responsibility of the Bidder to obtain all the necessary information with regard to site, surrounding, working conditions, weather etc. on its own before submission of the bid.

17. **Warranty**

Timely Servicing / rectification of defects during warranty period: After having been notified of the defects / service requirement during warranty period, Seller has to complete the required Service / Rectification within 3 days time limit. If the Seller fails to complete service / rectification with defined time limit, a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of delay from the seller. Seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the Performance Security (PBG). Cumulative Penalty cannot exceed more than 10% of the total contract value after which the Buyer shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Seller besides forfeiture of PBG. Seller shall be liable to re-imburse the cost of such service / rectification to the Buyer.

18. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

अस्वीकरण/Disclaimer

The Additional Terms and Conditions (ATC) have been incorporated by the Buyer after approval of their Competent Authority. The Buyer, is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any restriction arising in the bidding process due to these ATCs and including the modification of technical specifications and / or terms and conditions governing the bid. All representations / grievances pertaining to the ATC clauses shall be raised with the buyer organization directly and not with GeM. If any of the clause(s) is/are incorporated by the Buyer regarding the following, the bid & resultant contract shall be treated as null & void. Further, GeM reserves the right, at its sole discretion, to cancel the bid forthwith, without issuance of any prior notice or intimation :-

1. Publishing Custom / BOQ bids for items for which regular GeM categories are available (unless such Custom / BOQ item is bunched with the major regular product Category Item).
2. Mandating procurement of / from specific Brand / Make / Model / Manufacturer / Dealer except in case of Single Bid / Proprietary Article Certificate (PAC) Buying.
3. Inclusion of disqualification criteria related to suspension of seller / service provider, where such suspension period has already expired.
4. Mandating submission of documents (other than EMD and signed Integrity Pact - which can be submitted within 5 days of bid opening) in physical form as a pre-requisite to qualify bidders.
5. Publishing bids on GeM for procurement of works.
6. Procurement of Goods by creating a Service bid on GeM & vice-versa.
7. Seeking sample with bid or approval of samples during bid evaluation process. However, trial / sample, as the case may be, shall be permitted in cases where trial / sample are allowed as per approved and published procurement policy of the Buyers' controlling Ministry / Department / State / Public Sector Enterprises Headquarters. If there is any violation of trial / sample clause with regard to approved policy of the Buyers' Ministry / Department / State / Public Sector Enterprises Headquarters, then this is to be determined and redressed by the concerned Buyer Organisation only.
8. Seeking experience from specific organization / department / institute only or from foreign / export experience.
9. Creating bid for items from incorrect categories.
10. Reference of conditions published on any external site or reference to external documents/clauses.
11. Asking for any Tender fee / Bid Participation fee, as the case may be.
12. Buyer added ATC Clauses which are in contravention of clauses defined in bid detail section, including specifications, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by the applicable GeM GTC.
13. Any ATC clause in contravention with GeM GTC Clause 4 (xiii) (h) will be invalid. In case of multiple L1 bidders against a service bid, the buyer shall place the Contract by selection of a bidder amongst the L-1 bidders through a Random Algorithm executed by GeM system.
14. In a category based bid, adding additional items, through buyer added, additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogues or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

All GeM Sellers/Service Providers shall ensure full compliance with all applicable labour laws, including the provisions, rules, schemes and guidelines under the four Labour Codes i.e. the Code on Wages, 2019; the Industrial Relations Code, 2020; the Occupational Safety, Health and Working Conditions Code, 2020; and the Code on Social Security, 2020 as and when notified and brought into

force by the Government of India.

For all provisions of the Labour Codes that are pending operationalisation through rules, schemes or notifications, the corresponding provisions of the pre-existing labour enactments (such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972, etc. and relevant State Rules) shall continue to remain applicable.

The Seller/ Service Providers shall, therefore, be responsible for ensuring compliance under:

- All notified and enforceable provisions of the new Labour Codes as mentioned hereinabove; and
- All operative provisions of the erstwhile Labour Laws until their complete substitution.

All obligations relating to wages, social security, safety, working conditions, industrial relations etc. and any other statutory requirements shall be strictly met by the Seller/ Service Provider. Any non-compliance shall constitute a breach of the contract and shall entitle the Buyer to take appropriate action in accordance with the contract and applicable law.

This Bid is governed by the General Terms and Conditions, conditions stipulated in Bid and Service Level Agreement specific to the Service, as the case may be, as provided in the Marketplace.

However, in case of Service, if any condition specified in General Terms and Conditions is contradicted by the conditions stipulated in Service Level Agreement specific to said Service, then it will over-ride the conditions in the General Terms and Conditions.

[यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by the General Terms and Conditions](#)

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---धन्यवाद/Thank You---

MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY

GORAKHPUR – 273010, UTTAR PRADESH

IT RESOURCE CENTRE

TENDER DOCUMENT

ESTABLISHMENT OF CCTV SURVEILLANCE SYSTEM

Supply, Installation, Testing, Commissioning and Configuration

1. SCOPE OF WORK

The scope includes design, supply, installation, testing, commissioning and maintenance of an IP-based CCTV Surveillance System for 24×7 monitoring, recording and security of the campus/building.

- Site survey and preparation of implementation plan.
- Supply of CCTV cameras, NVR systems, display units, network equipment, UPS and passive infrastructure.
- Supply and laying of optical fiber, UTP, power cables and conduits/pipes.
- Installation of camera poles, outdoor IP66 boxes/racks and information outlets.
- Installation, configuration and commissioning of all CCTV and network equipment.
- Testing of camera views, recording, playback, storage and network connectivity.
- System documentation, configuration backup and handover.
- Training/operational orientation to designated University personnel, wherever required.

2. SCHEDULE OF REQUIREMENTS / BOQ

Sr. No.	Item Description	Qty	Unit
1	Project Series 4 MP Dome Camera	163	Nos.
2	Project Series 4 MP Bullet Camera	128	Nos.
6	16 Channel NVR, 4 SATA Port, preloaded with 4×10 TB HDD	10	Nos.
3	32 Channel NVR, 4 SATA Port, preloaded with 4×10 TB HDD	2	Nos.
4	64 Channel NVR, 8 SATA Port, preloaded with 8×10 TB HDD	4	Nos.
5	65 Inch Commercial LED TV	6	Nos.
8	24 Port 1G Fiber Switch with 16 nos. 1G LX transceivers	1	Nos.
9	24 Port PoE Switch 370W with 2 SFP Ports and 1 nos. 1G LX transceiver	4	Nos.
10	8 Port PoE Switch 120W with 2 SFP Ports and 1 nos. 1G LX transceiver	61	Nos.
12	1 KVA UPS with 30 min. backup	60	Nos.
13	Iron Pole 7 Mtr with Support Arm for Camera	25	Nos.
14	Outdoor IP66 Rack	36	Nos.
15	6 Core Single Mode Fiber	6000	Mtr.
16	HDPE Pipe 32mm	5000	Mtr.

17	PVC Pipe 25mm	5000	Mtr.
18	UTP CAT6 Cable	12500	Mtr.
19	Armoured Outdoor UTP Cable	2200	Mtr.
20	LIU of Fiber Termination Box	36	Nos.
21	24 Port Jack Panel	25	Nos.
22	Information Outlet for Camera	250	Nos.
23	3 Core 1.5 MM Power Cable	3000	Meter
24	Iron Pole 7 Mtr with Support Arm for Camera – Jobwork	25	Nos.
25	Laying of 6 Core Single Mode Outdoor Fiber	6000	Mtr.
26	Laying of HDPE Pipe and Digging of Soft Soil	4000	Mtr.
27	Laying of HDPE Pipe and Digging of Hard Soil	1000	Mtr.
28	Laying of PVC Pipe	5000	Mtr.
29	Fixing of Outdoor IP66 Box	36	Nos.
30	Laying of UTP CAT6 Outdoor Cable	2000	Mtr.
31	Laying of UTP CAT6 Cable	12000	Mtr.
32	Installation of Information Outlet for Camera	315	Nos.
33	Laying of Power Cable	3000	Mtr.
34	Camera Installation	307	No.
35	Documentation & Configuration of CCTV	1	Job

3. TECHNICAL REQUIREMENTS

- The offered equipment shall be new, unused and suitable for continuous surveillance operation.
- All equipment shall be compatible with the proposed IP-based CCTV architecture.
- Bidder shall provide OEM datasheets/brochures for offered equipment wherever applicable.
- Installation shall include all accessories, connectors, mounting hardware and consumables necessary for complete operation.
- Fiber and copper cabling shall be properly routed, terminated, labelled and tested.
- NVRs shall be configured for recording, playback, user management and system health monitoring.
- The complete system shall be tested end-to-end before handover.

4. INSTALLATION, TESTING & COMMISSIONING

The successful bidder shall execute installation and commissioning in coordination with the University. All installed devices shall be configured, tested and demonstrated. Any defect noticed during testing shall be rectified by the bidder at no additional cost.

TECHNICAL SPECIFICATIONS

A- 4MP Dual Light VF Bullet Camera - 50Mtr

4MP Dual Light VF Bullet Camera - 50Mtr			
S.No.	Description	Specifications	Compliance Yes/No
	Make		
	Model		
1	Image Sensor	1/2.7" 4MP PS CMOS Image Sensor with minimum 2688 (H) × 1520 (V) pixels	
2	Minimum Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on)	
3	Shutter Speed	Auto/Manual 1/3 s–1/100,000 s	
4	White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom	
5	DORI Distance	60 m (Detect), 20 m (Observe), 10 m (Recognize), 6 m (Identify)	
6	Features	WDR(120dB), Day/Night(ICR), 3D NR, ROI, AWB, AGC, BLC, HLC, Digital watermarking	
7	Optics	2.7mm~13.5mm Motorized Lens with close focus distance of 0.8 m & H: 97°–28°, V: 52°–16°, D: 117°–32°	
8	S/N Ratio	>58 dB	
9	Video Compression	Instastream, H.265, H.264, H.264H, H.264B	
10	IR	IR Range of 50mtr	
11	Frame Rate	Main stream: 4MP (2688 × 1520)@1–25/30fps, (2560 × 1440)@1-25/30fps, 3MP (2304 × 1296)@1-25/30fps,1080P (1920 × 1080)@1-25/30fps Sub stream 1: D1 (704 × 576/ 704 × 480)@1-25/30fps, Sub stream 2: D1 (704 × 576/ 704 × 480)@1-25/30fps Sub stream 3: D1 (704 × 576/ 704 × 480)@1fps	
12	Privacy Mask	4 Areas	
13	IVS(Perimeter Protection)	Tripwire, Intrusion, IMD	
14	OSD	Camera title, Date & Time	
15	Audio & Compression with Audio I/O	Built-in Mic, 1in/1out Channel (RCA port) having G.711a, G.711Mu, G.726, PCM, AAC compressions	
16	Alarm IN / Out	1 Channel in: 5 mA 3–5 VDC , 1 Channel out: 300 mA 12 VDC	

17	Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps with CBR & VBR control	
	Network Compatibility		
18	Protocol	All necessary protocols to run the system as per the STQC guidelines	
19	SDK and API	Support	
20	Ethernet	RJ-45 (10/100 Base-T)	
21	Mirror Function	Support	
22	Noise Reduction	3D NR	
23	Motion detection	OFF/ON (4 areas, rectangular)	
24	Storage	SFTP, Mirco SD card (Max. 512GB)	
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, IMD (Intelligent motion detection), Security exception, External alarm	
26	Iris Control	Fixed	
27	Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot	
28	Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2M resolution and lower)	
29	User/Host	6 (Total bandwidth: 36 M)	
30	Certificates	ISO 9001: 2015, ISO 20000-1 : 2018, CE, FCC and RoHS, BIS, STQC approved compliance report	
	Power and other compatibility		
31	Power Consumption	Basic: 1.6 W (12 VDC), 2.1 W (PoE) Max. (H.265+ intelligence on + WDR + illuminator on): 5.8 W (12 VDC), 6.9 W (PoE)	
32	Weatherproof Standard	IP67 & IK10 (optional)	
33	Operating Temperature	As per the enviromental conditions	
34	Operating & Storage Humidity	≤95%	

B- 4MP VF Dome Camera - 50Mtr

	4MP VF Dome Camera - 50Mtr		
S.No.	Description	Specifications	

	Make		
	Model		
1	Image Sensor	1/2.7" 4MP PS CMOS Image Sensor with minimum 2688 (H) × 1520 (V) pixels	
2	Minimum Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lux@F1.4 (B/W, 30 IRE), 0 lux (IR on)	
3	Shutter Speed	Auto/Manual 1/3 s–1/100,000 s	
4	White Balance	Auto, Natural, Street lamp, Outdoor, Manual, Regional custom	
5	DORI Distance	60 m (Detect), 20 m (Observe), 10 m (Recognize), 6 m (Identify)	
6	Features	WDR(120dB), Day/Night(ICR), 3D NR, ROI, AWB, AGC, BLC, HLC, Digital watermarking	
7	Optics	2.7mm~13.5mm Motorized Lens with close focus distance of 0.8 m & H: 113°–31°, V: 58°–18°, D: 138°–36°	
8	S/N Ratio	>58 dB	
9	Video Compression	Instastream, H.265, H.264, H.264H, H.264B	
10	IR & Warm Light	IR & Warm light range of 60mtr	
11	Frame Rate	Main stream: 4MP (2688 × 1520)@1–25/30fps, (2560 × 1440)@1-25/30fps, 3MP (2304 × 1296)@1-25/30fps,1080P (1920 × 1080)@1-25/30fps Sub stream 1: 720P (1280 × 720)@1-25/30fps, VGA (640 × 480)@1-25/30fps Sub stream 2: VGA (640 × 480)@1-25/30fps, CIF (352 × 288/ 352 × 240)@1-25/30fps Sub stream 3: D1 (704 × 576/ 704 × 480)@1fps	
12	Privacy Mask	4 Areas	
13	IVS(Perimeter Protection)	Tripwire, Intrusion, IMD	
14	OSD	Camera title, Date & Time	
15	Audio & Compression with Audio I/O	Built-in Mic, 1in/1out Channel (RCA port) having G.711a, G.711Mu, G.726, PCM, AAC compressions	
16	Alarm IN / Out	1 Channel in: 5 mA 3–5 VDC , 1 Channel out: 300 mA 12 VDC	
17	Bit Rate	H.265: 3 kbps-6144 kbps, H.264: 8 kbps-6144 kbps with CBR & VBR control	
	Network Compatibility		
18	Protocol	All necessary protocols to run the system as per the STQC guidelines	
19	SDK and API	Support	

20	Ethernet	RJ-45 (10/100 Base-T)	
21	Mirror Function	Support	
22	Noise Reduction	3D NR	
23	Motion detection	OFF/ON (4 areas, rectangular)	
24	Storage	SFTP, Mirco SD card (Max. 512GB)	
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, IMD (Intelligent motion detection), Security exception, External alarm	
26	Iris Control	Fixed	
27	Cyber Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, WSSE, account lockout, syslog, video encryption, IP/MAC filtering, HTTPS, trusted upgrade, trusted boot	
28	Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2M resolution and lower)	
29	User/Host	6 (Total bandwidth: 36 M)	
30	Certificates	ISO 9001: 2015, ISO 20000-1 : 2018, CE, FCC and RoHS, BIS, STQC approved compliance report	
	Power and other compatibility		
31	Power Consumption	Basic: 1.6 W (12 VDC), 2.1 W (PoE) Max. (H.265+ intelligence on + WDR + illuminator on): 5.8 W (12 VDC), 6.9 W (PoE)	
32	Weatherproof Standard	IP67 & IK10 (optional)	
33	Operating Temperature	As per the enviromental contions	
34	Operating & Storage Humidity	≤95%	

C- 16Ch. 4K AI Network Video Recorder

	16Ch. 4K AI Network Video Recorder		
S.No.	Description	Specifications	
	Make		
	Model		
1	Processor	Industrial-grade processor	
2	IP Camera Input	16 Channels	
3	Operating System	Embedded LINUX	
4	User Interface	Web, Local GUI	

5	Video Output	2 VGA & 2 HDMI	
6	Video Compression	Instastream, H.265, H.264+, H.264, MJPEG	
7	Decoding Capability	AI disabled: 16 Channel 4MP@30 fps AI enabled: 12 Channel 4MP@30 fps	
8	AI by NVR	Face detection, Face recognition, Perimeter protection, IMD+	
9	IntelliCheck AI by Camera + Recorder	Max. 16 Channel, 1 combined event per Channel/s	
10	Resolution	32MP, 24MP, 16MP, 12MP, 8MP, 6MP, 5MP, 4MP, 3MP, 2MP, 720p, 960p, D1, CIF, QCIF	
11	Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing	
12	Video Display Split	Main screen: 1/4/8/9/16, Sub screen: 1/4/8/9/16	
13	Perimeter Performance AI by NVR (Number of Channels)	4 Channels, 10 IVS rules for each Channel	
14	Face Attributes	Gender, Age group, Glasses, Expressions, Face mask, Beard	
15	Face Detection Performance of AI by Recorder (Number of Channels)	2 Channels (up to 12 face images/s each Channel)	
16	Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, Gender, Birthday, Address, Credential type, Credential No., Countries & Regions and state can be added to each face image.	
17	Face Recognition Performance of AI by NVR (Number of Channels)	1.16 Channel FD (by camera) + FR (by NVR), image stream: 16 face images/s 2.2 Channel FD (by recorder) + FR (by NVR), video stream: 12 face images/s	
18	IMD+ by NVR	8 Channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	
19	Human Attributes	Top color, Top type, Bottom color, Bottom type, Hat, Bag, Age, Gender and Umbrella	

20	Abnormality Alarm	Camera offline, Storage error, Disk full, IP conflict, MAC conflict, Login lock, Abnormal behaviour of fan, Cyber security exception	
21	Intelligent Alarm	Face detection, Perimeter protection, Face recognition, Video metadata (Human, Motor vehicles, Non-motor vehicles), SMD Plus, Stereo analysis, Crowd distribution, People counting, ANPR, Vehicle density, Heat map	
22	General Alarm	Motion detection; privacy masking; local alarm	
23	Alarm Linkage	Record, Snapshot (panoramic), Local alarm output, IPC external alarm output, Access controller, Audio, Buzzer, Log, Preset, Email	
24	Audio Input/Output	1 Channel RCA/2 Channels RCA	
25	Audio Compression	G.711a, G.711u, PCM, G726, AAC	
26	Disk Group	Support	
27	Alarm Input/Output	16 Channels/8 Channels (1 Channel 12 V 1 A output)	
28	Hard Disk	8 SATA ports, each disk can contain up to 20 TB.	
29	Multi-channel Playback	Up to 16 Channels	
30	Record Mode	General, Motion detection, Intelligent, Alarm, POS	
31	Backup Method	USB device and network	
32	Playback Mode	Instant playback, General playback, Event playback, Tag playback, Smart playback (face and motion detection)	
	Network Compatibility		
33	Protocols	All necessary protocols to run the system as per the STQC guidelines	
34	RAID	RAID 0/1/5/6/10	
35	Interface Ports	4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports), 1 eSATA Port, 1 RS232, 2 RS485 (1 port for half-duplex serial communication, 1 port for full-duplex serial communication)	
36	Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes	
37	Ethernet	2 (10/100/1000 Mbps Ethernet port, RJ-45)	
	Power and other compatibility		
38	Power Supply	100–240 VAC, 50-60 Hz	
39	Power Consumption	Total output of NVR is ≤ 13 W (without HDD)	

40	Operating Temperature	As per the enviromental contions	
41	Operating Humidity	10%–93% (RH), non-condensing	

D- 32Ch. 4K AI Network Video Recorder

32Ch. 4K AI Network Video Recorder			
S.No.	Description	Specifications	
	Make		
	Model		
1	Processor	Industrial-grade processor	
2	Operating System	Embedded LINUX	
3	User Interface	Web, Local GUI	
4	Video Output	2 VGA & 2 HDMI	
5	Video Compression	Instastream, H.265, H.264+, H.264, MJPEG	
6	Decoding Capability	AI disabled: 16 Channel 4 MP@30 fps, 32 Channel 1080p@30 fps AI enabled: 12 Channel 4 MP@30 fps, 24 Channel 1080p@30 fps	
7	AI by NVR	Face detection, Face recognition, Perimeter protection, IMD+	
8	IntelliCheck AI by Camera + Recorder	Max. 32 Channel, 1 combined event per Channel/s	
9	Resolution	32 MP, 24 MP, 16 MP, 12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 2 MP, 720p, 960p, D1, CIF, QCIF	
10	Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing	
11	Video Display Split	Main screen: 1/4/8/9/16/25/36, Sub screen: 1/4/8/9/16	
12	Perimeter Performance AI by NVR (Number of Channels)	4 Channels, 10 IVS rules for each Channel	
13	Face Attributes	Gender, Age group, Glasses, Expressions, Face mask, Beard	
14	Face Detection Performance of AI by Recorder (Number of Channels)	2 Channels (up to 12 face images/s each Channel)	
15	Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image	

16	Face Recognition Performance of AI by NVR (Number of Channels)	1.16 Channel FD (by camera) + FR (by NVR), image stream: 16 face images/s 2.2 Channel FD (by NVR) + FR (by NVR), video stream: 12 face images/s	
17	IMD+ by NVR	8 Channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	
18	Human Attributes	Top color, Top type, Bottom color, Bottom type, Hat, Bag, age, Gender and Umbrella	
20	Abnormality Alarm	Camera offline, Storage error, Disk full, IP conflict, MAC conflict, Login lock, Abnormal behaviour of fan, Cyber security exception	
21	Intelligent Alarm	Face detection, Perimeter protection, Face recognition, Video metadata (Human, Motor vehicles, Non-motor vehicles), IMD+, Stereo analysis, Crowd distribution, People counting, ANPR, Vehicle density, Heat map	
22	General Alarm	Motion detection, Local alarm, Alarm box, Camera external alarm, Network alarm, Scene changing, PIR alarm, Thermal alarm	
23	Alarm Linkage	Record, Snapshot (panoramic), Local alarm output, IPC external alarm output, Access control-ler, Audio, Buzzer, Log, Preset, Email	
24	Audio Input	1 Channel RCA	
25	Audio Output	2 Channel RCA	
26	Audio Compression	G.711a, G.711u, PCM, G726, AAC	
27	Disk Group	Support	
28	Alarm Input	16 Channel	
29	Alarm Output	6 Channels (1 Channel 12 V 1 A output)	
30	Hard Disk	4 SATA ports, each disk can contain up to 20 TB.	
31	Multi-channel Playback	Up to 16 Channels	
32	Record Mode	General, Motion detection, Intelligent, Alarm, POS	
33	Backup Method	USB device and network	
34	Playback Mode	Instant playback, General playback, Event playback, Tag playback, Smart playback (face and motion detection)	
35	Interface Ports	3 USB (1 front USB 2.0 port, 2 rear USB 3.0 ports), 1 RS232, 1 eSATA Port, 1 RS485 (half-duplex serial communication)	

	Network Compatibility		
36	Protocols	All necessary protocols to run the system as per the STQC guidelines	
37	Network Mode	Multi-address mode, Load balance, Fault tolerance and other network port binding modes	
38	Ethernet	2 (10/100/1000 Mbps Ethernet port, RJ-45)	
	Power and other compatibility		
39	Power Supply	100–240 VAC, 50-60 Hz	
40	Power Consumption	Total output of NVR is ≤ 13 W (without HDD)	
41	Operating Temperature	As per the environmental conditions	
42	Operating Humidity	10%–93% (RH), non-condensing	

E- 64Ch. AI Network Video Recorder

	64Ch. AI Network Video Recorder		
S.No	Description	Specifications	
	Make		
	Model		
1	Processor	Industrial-grade processor	
2	IP Camera Input	64 Channel	
3	Operating System	Embedded LINUX	
4	User Interface	Web, Local GUI	
5	Video Output	2 VGA & 2 HDMI	
6	Video Compression	Instastream, H.265, H.264+, H.264, MJPEG	
7	Decoding Capability	AI disabled: 16 Channel 4 MP@30 fps, 32 Channel 1080p@30 fps AI enabled: 12 Channel 4 MP@30 fps, 24 Channel 1080p@30 fps	
8	AI by NVR	Face detection, Face recognition, Perimeter protection, SMD Plus	
9	IntelliCheck AI by Camera + Recorder	Max. 32 Channel, 1 combined event per Channel/s	
10	Resolution	32 MP, 24 MP, 16 MP, 12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 3 MP, 2 MP, 720p, 960p, D1, CIF, QCIF	
11	Network Bandwidth	AI disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing AI enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing	
12	Video Display Split	Main screen: 1/4/8/9/16/25/36/64, Sub screen: 1/4/8/9/16	

13	Perimeter Performance AI by NVR (Number of Channels)	4 Channels, 10 IVS rules for each Channel	
14	Face Attributes	Gender, Age group, Glasses, Expressions, Face mask, Beard	
15	Face Detection Performance of AI by Recorder (Number of Channels)	2 Channels (up to 12 face images/s each Channel)	
16	Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.	
17	Face Recognition Performance of AI by NVR (Number of Channels)	1. 16 Channel FD (by camera) + FR (by NVR), image stream: 16 face images/s 2. 2 Channel FD (by NVR) + FR (by NVR), video stream: 12 face images/s	
18	SMD Plus by NVR	8 Channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change	
19	Human Attributes	Top color, Top type, Bottom color, Bottom type, Hat, Bag, Age, Gender and Umbrella	
21	Non-motor Vehicle Attributes	Vehicle model, Vehicle color, Number of persons, Helmet	
22	Abnormality Alarm	Camera offline, storage error, disk full, IP conflict, behaviour of fan, cyber security exception	
23	Intelligent Alarm	Face detection, Perimeter protection, Face recognition, Video metadata (Human, Motor vehicles, non-motor vehicles), SMD Plus, Stereo analysis, Crowd distribution, People counting, ANPR, Vehicle density, Heat map	
24	General Alarm	Motion detection, local alarm, alarm box, camera external alarm, network alarm, scene chang-ing, PIR alarm, thermal alarm	
25	Alarm Linkage	Record, snapshot (panoramic), local alarm output, IPC external alarm output, access control-ler, audio, buzzer, log, preset, email	
26	Audio Input	1 Channel RCA	
27	Audio Output	2 Channel RCA	
28	Audio Compression	G.711a, G.711u, PCM, G726, AAC	
29	Disk Group	Support	
30	Alarm Input	16 Channel	

31	Alarm Output	8 Channels (1-channel 12 V 1 A output)	
32	Hard Disk	8 SATA ports, each disk can contain up to 20 TB. This limit varies depending on the environment temperature	
33	Multi-channel Playback	Up to 16 Channels	
34	Record Mode	General, Motion detection, Intelligent, Alarm, POS	
35	Backup Method	USB device and network	
36	Playback Mode	Instant playback, General playback, Event playback, Tag playback, Smart playback (face and motion detection)	
37	Smart Phone	iPhone, iPad, Android Phone	
38	RAID	RAID 0/1/5/6/10	
39	Interface Ports	4 (2 front USB 2.0 ports, 2 rear USB 3.0 ports), 1 eSATA Port, 1 RS232, 2 RS485 (1 port for halfduplex serial communication, 1 port for full-duplex serial communication)	
	Network Compatibility		
40	Protocols	All necessary protocols to run the system as per the STQC guidelines	
41	Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes	
42	Ethernet	2 (10/100/1000 Mbps Ethernet port, RJ-45)	
	Power and other compatibility		
43	Power Supply	100–240 VAC, 50-60 Hz	
44	Power Consumption	Total output of NVR is ≤ 13 W (without HDD)	
45	Operating Temperature	As per the environmental conditions	
46	Operating Humidity	10%–93% (RH), non-condensing	

F- 9U Rack (Premium Series)

	9U Rack (Premium Series)		
S.No	Description	Specifications	
	Make		
	Model		
1	Wall Mount Rack 9U 630mm deep 19".		
2	1.6mm Vertical Mounting Rail with clear 'U' Marking.		
3	0.8mm CRCA Sheet.		

4	Cooling Fan options (min 1).	
5	Cable entry/exit provision (minimum 2) at top and bottom with rubber at edges.	
6	Front with Toughened Glass Door & Lock (5mm).	
7	1U Cable Manager (1 Pc)	
8	Powder coated Color- RAL- 7035.	
9	6 Socket PDU (5amp).	
10	Wall Mounting Kit	
11	Conforms to DIN41494 or equivalent ISO 9001:2015 and 14001:2015 Standards.	
12	Load Bearing Capacity - 40Kg.	
13	For Small Networking, Telecom, Audio video, CCTV applications.	
14	CE & RoHS Compliance	

G- 24 Port Switch 24 SFP + 2 10GBase-T ports + 4 10G SFP+ ports

S.No.	Switch - Stackable Managed Switch	Compliance (Yes/No)
1	The Switch should have 24 SFP + 2 10GBase-T ports + 4 10G SFP+ ports, Managed Switch.	
2	RJ-45 console port for accessing the command line interface (CLI) of this switch for configuration, management, and monitoring, RJ-45 port for out-of-band management to configure the switch without being connected to the network, USB Port for connecting a USB storage device.	

3	Switch / OEM Should have Certificate for Industrial Cyber Security Capability (Like - IEC-62443-4-1:2018 or Equivalent Indian Certificate). OEM/Product must be on Trusted Telecom Portal of Department of Telecommunication, Government of India.	
4	The Switch should be Certificates FCC, CE, UL or Equivalent Indian Certificate for EMI and Safety Compliance and MTCTE.	
5	The Switch should have Operation Temperature • 0 to 50 °C (32 to 122 °F) or higher	
6	The Switch should support for Physical stacking up to 8 units per stack and support long-distance stacking over fiber and Support up to 40 Gbps stacking bandwidth.	
7	The Switch should support mechanism ERPS to prevent loop formation in Ethernet ring and enables ring to converge in less than 50 ms from node or link failure	
8	The Switch should have L3 Features i.e. Static routing, IPv6 Neighbour Discovery (ND), VRRP v2, OSPFv2/v3, PBR (Policy-based Route), Route Redistribution, RIPv1/v2/ng, IP Helper.	
9	The Switch should support VLAN, 802.1Q, VLAN mirroring, Double VLAN (Q-in-Q), Private VLAN, 802.3x , RSPAN.	
10	The Switch should support Security features, 802.1X authentication, Port security , Radius & TACACS+ authentication & accounting, DAD, DAI, DoS attack prevention, SSH, Guest VLAN, Time-based ACL, IP Access List, MAC Access List.	
11	The Switch should support Multicast features, Multicast VLAN, IGMP & MLD Snooping, Flow mirroring, IGMP & MLD Snooping Querier, Per-VLAN IGMP & MLD Snooping.	
12	The Switch should support Quality of Service (QoS) features , Three Color Marker, Class of Service (CoS), Bandwidth control, WRED.	

13	The Switch should support Management features, CLI, SNMP, Dual configurations, Multiple images, RMON, LLDP/LLDP-MED, sFlow, DHCP/BOOTP Client, IPv4/IPv6 Syslog server, Debug command, 802.3ah Ethernet Link OAM, 802.1ag Connectivity Fault, Y.1731 OAM, Dying Gasp, Cable Diagnostic.	
14	Switch should be supplied with the all necessary components like Power supply, Power cord, All Fan Module, Console Cable, Rack-mount kit, Installation Guide, etc. and necessary software image file to fulfil all above mention feature set from day 1.	

H- 24 Port 10/100/1000 PoE switch

	24 Port 10/100/1000 PoE switch	Compliance (Yes/No)
1	Switch with at least 24 X RJ-45 PoE Gigabit Ethernet Ports and 4 Combo (SFP/RJ-45) 1G Ports.	
2	Switch / OEM Should have Certificate for Industrial Cyber Security Capability (Like - IEC-62443-4-1:2018 or Equivalent Indian Certificate). OEM/Product must be on Trusted Telecom Portal of Department of Telecommunication, Government of India.	
3	The Switch should be Certificates FCC, CE, UL or Equivalent Indian Certificate for EMI and Safety Compliance and MTCTE.	
4	Switching capacity should be 56Gbps or higher or non-blocking architecture.	
5	Switch packet forwarding rate should be 41Mpps or higher or non-blocking architecture.	
6	Switch MAC table should be at least 8K or higher.	
7	Switch should delivered 802.3at PoE+ and 802.3af PoE power to any of the PoE RJ-45 ports.	
8	The total power available for PoE switch should be 370W or higher.	

9	Switch should be standard 19 inch 1U rack mountable.	
10	Support for the Energy Efficient Ethernet (IEEE 802.3az) standard.	
11	Power input should be 100 to 240 V AC 50/60 Hz internal universal power supply	
12	Operating temperature should be 0 degree Celsius to +50 degree Celsius.	
13	Should support Head of Line blocking prevention for lower latency and better performance.	
14	Support Jumbo Frame up to 10K Bytes or higher.	
15	Should support IGMP Snooping, Able to create 250 or more IGMP groups, IGMP snooping querier and require support for IGMP Snooping Fast Leave.	
16	Should support MLD Snooping, Able to create 250 or more MLD groups, Per VLAN MLD Snooping and require support for MLD Snooping Fast Leave.	
17	Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol.	
18	Should support Loopback detection (LBD) to detect the loop created by a specific port.	
19	Should support Multicast Filtering to filters or forward all unregistered groups.	
20	Switch should support IEEE 802.1Q VLAN tagging for Ethernet frames.	
21	Different type of VLAN like Port based, Auto Voice, etc. should be available for configuration.	
22	Switch should support QoS (quality of service) IEEE 802.1P for traffic prioritization. It should support 8 queues per port.	
23	Different type of QoS priority like Strict Priority Queue and Weighted Round Robin.	
24	Port based ingress / egress rate limit function should be available with limit in increments as low as 16 Kbps.	

25	Switch should support Neighbor Discovery (ND) protocol for IPv6.	
26	Switch should support IPv4 / IPv6 IP Interfaces and support default routing and static routing with minimum 100 IPv4 static route entries and minimum 50 IPv6 static route entries.	
27	Support at least 700 access control entries. Each entry should be applied on single / multiple ports with permit / deny action.	
28	Switch should support feature for automatically throttles the impact of packet flooding into the switch's CPU.	
29	Should support port security to secures the access port based on MAC address.	
30	should have broadcast, multicast, and unicast storm control to prevents faulty end stations from degrading overall systems performance.	
31	Support Traffic Segmentation to restricted traffic flow from a single or group of ports, to another group of ports.	
32	Should have SSH and SSL for IPv4 and IPv6.	
33	Require prevention of DoS attacks, which include Land, Blat, TCP Null Scan, TCP Xmas Scan and TCP SYNFIN.	
34	Should support 802.1X port-based authentication.	
35	Should support ARP spoofing prevention.	
36	Should support DHCP snooping and DHCP server screening.	
37	Switch should able to create a binding table for IP + MAC + Port to prevents a malicious user from spoofing or to restrict the unauthorized users.	
38	Should support 802.1X RADIUS and local server database authentication.	
39	Should have option to check the status of copper cables using the	

	cable-diagnostics time domain reflectometer (TDR).	
40	Able to manage through Web-GUI, Compact CLI and Telnet.	
41	Should support SNMP v1, v2c, v3 and SNMP Traps and Remote Monitoring (RMON).	
42	Should have dual Image support to enhance the reliability of the switch.	
43	Switch should support dynamic host configuration protocol (DHCP) auto configuration of multiple switches through a boot server eases switch deployment.	
44	Should have SNTP/NTP protocol for time synchronization.	
45	Switch should be IPv6 Ready Compliance.	
46	Should support Link Layer Discovery Protocol (LLDP) and LLDP-MED.	

I- 8 Port 10/100/1000 PoE switch

	8 Port 10/100/1000 PoE switch	Compliance (Yes/No)
1	Switch with at least 8 X RJ-45 PoE Gigabit Ethernet Ports and additional 2 X 1G SFP Ports.	
2	Switch / OEM Should have Certificate for Industrial Cyber Security Capability (Like - IEC-62443-4-1:2018 or Equivalent Indian Certificate). OEM/Product must be on Trusted Telecom Portal of Department of Telecommunication, Government of India.	
3	The Switch should be Certificates FCC, CE, UL or Equivalent Indian Certificate for EMI and Safety Compliance and MTCTE.	
4	Switching capacity should be 20Gbps or higher or non-blocking architecture.	
5	Switch packet forwarding rate should be 14Mpps or higher or non-blocking architecture.	
6	Switch MAC table should be at least 8K or higher.	
7	Switch should delivered 802.3at PoE+ and 802.3af PoE power to any of the PoE RJ-45 ports.	

8	The total power available for PoE switch should be 130W or higher.	
9	Switch should be standard 19 inch 1U rack mountable.	
10	Support for the Energy Efficient Ethernet (IEEE 802.3az) standard.	
11	Operating temperature should be 0 degree Celsius to +50 degree Celsius.	
12	Should support Head of Line blocking prevention for lower latency and better performance.	
13	Support Jumbo Frame up to 10K Bytes or higher.	
14	Should support IGMP Snooping, Able to create 250 or more IGMP groups, IGMP snooping querier and require support for IGMP Snooping Fast Leave.	
15	Should support MLD Snooping, Able to create 250 or more MLD groups, Per VLAN MLD Snooping and require support for MLD Snooping Fast Leave.	
16	Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol.	
17	Should support Loopback detection (LBD) to detect the loop created by a specific port.	
18	Should support Multicast Filtering to filters or forward all unregistered groups.	
19	Switch should support IEEE 802.1Q VLAN tagging for Ethernet frames.	
20	Different type of VLAN like Port based, Auto Voice, etc. should be available for configuration.	
21	Switch should support QoS (quality of service) IEEE 802.1P for traffic prioritization. It should support 8 queues per port.	
22	Different type of QoS priority like Strict Priority Queue and Weighted Round Robin.	
23	Port based ingress / egress rate limit function should be available with limit in increments as low as 16 Kbps.	

24	Switch should support Neighbor Discovery (ND) protocol for IPv6.	
25	Switch should support IPv4 / IPv6 IP Interfaces and support default routing and static routing with minimum 100 IPv4 static route entries and minimum 50 IPv6 static route entries.	
26	Support at least 700 access control entries. Each entry should be applied on single / multiple ports with permit / deny action.	
27	Switch should support feature for automatically throttles the impact of packet flooding into the switch's CPU.	
28	Should support port security to secures the access port based on MAC address.	
29	should have broadcast, multicast, and unicast storm control to prevents faulty end stations from degrading overall systems performance.	
30	Support Traffic Segmentation to restricted traffic flow from a single or group of ports, to another group of ports.	
31	Should have SSH and SSL for IPv4 and IPv6.	
32	Require prevention of DoS attacks, which include Land, Blat, TCP Null Scan, TCP Xmas Scan and TCP SYNFIN.	
33	Should support 802.1X port-based authentication.	
34	Should support ARP spoofing prevention.	
35	Should support DHCP snooping and DHCP server screening.	
36	Switch should able to create a binding table for IP + MAC + Port to prevents a malicious user from spoofing or to restrict the unauthorized users.	
37	Should support 802.1X RADIUS and local server database authentication.	
38	Should have option to check the status of copper cables using the	

	cable-diagnostics time domain reflectometer (TDR).	
39	Able to manage through Web-GUI, Compact CLI and Telnet.	
40	Should support SNMP v1, v2c, v3 and SNMP Traps and Remote Monitoring (RMON).	
41	Should have dual Image support to enhance the reliability of the switch.	
42	Switch should support dynamic host configuration protocol (DHCP) auto configuration of multiple switches through a boot server eases switch deployment.	
43	Should have SNTP/NTP protocol for time synchronization.	
44	Switch should be IPv6 Ready Compliance.	
45	Should support Link Layer Discovery Protocol (LLDP) and LLDP-MED.	

J- Iron Pole

	Iron Pole	Compliance (Yes/No)
1	7 Mtr. Galvanized iron octagonal pole - bottom 130mm, top 70mm, base plate 220X220X12mm, foundation bolt 20X600X4 nos., camera mounting bracket	

Details And Specifications of The Premise

CCTV Surveillance System			
Sr No.	Item Description	Qty	Unit
	CCTV System		
1	Project Series 4 MP Dome Camera	163	Nos.
2	Project Series 4 MP Bullet Camera	128	Nos.
6	16 Channel Network Video Recording Software (NVR) system 4 SATA Port and Preloaded with 4x10 TB HDD	10	Nos.
3	32 Channel Network Video Recording Software (NVR) system 4 SATA Port and Preloaded with 4x10 TB HDD	2	Nos.
4	64 Channel Network Video Recording Software (NVR) system 8 SATA Port and Preloaded with 8x10 TB HDD	4	Nos.
5	65 Inch Commercial LED TV	6	Nos.
	Network Item		
8	24 Port 1G Fiber Switch preloaded with 16 nos. 1G LX transceiver	1	Nos.
9	24 Port PoE Switch 370w with 2 SFP Ports, preloaded with 1 nos. 1G LX transceiver	4	Nos.
10	8 Port PoE Switch 120w with 2 SFP Ports, preloaded with 1 nos. 1G LX transceiver	61	Nos.
	Passive Item		
12	1KVA UPS with 30 min.backup	60	Nos.
13	Iron Pole 7 Mtr With Support Arm For Camera	25	Nos.
14	Outdoor IP66 Rack	36	Nos.
15	6 Core Single Mode Fiber	6000	Mtr.
16	HDPC Pipe 32mm	5000	Mtr.
17	PVC Pipe 25mm	5000	Mtr.
18	UTP CAT6 Cable	12500	Mtr.
19	Armoured Outdoor UTP Cable	2200	Mtr.
20	LIU of Fiber termination Box	36	Nos.
21	24 Port Jack Panel	25	Nos.
22	Information outlet for Camera	250	Nos.
23	3 Core 1.5 MM Power Cable	3000	Meter
	Jobwork		
24	Iron Pole 7 Mtr With Support Arm For Camera	25	Nos.
25	Laying of 6 Core Single Mode outdoor fiber	6000	Mtr.
26	Laying of HDPE pipe and Digging of Soft Soil	4000	Mtr.
27	Laying of HDPE pipe and Digging of Hard Soil	1000	Mtr.
28	Laying of PVC pipe	5000	Mtr.
29	Fixing Of Outdoor IP 66 Box	36	Nos.
30	Laying Of UTP CAT6 outdoor cable	2000	Mtr.
31	Laying Of UTP CAT6 cable	12000	Mtr.
32	Installation Of Information outlet for Camera	315	Nos.

33	Laying Of Power Cable	3000	Mtr.
34	Camera Installation	307	No.
35	Documntation & Configuration of CCTV	1	Job