NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI - 620 015

ESTATE MAINTENANCE DEPARTMENT

NOTICE INVITING QUOTATION

File No.	NITT/F.NO.037/CAPEX(OH-35)/2024-25/EMD	Date:	14.10.2024

To

(Supplier Address)

Sealed quotations are invited from reputed Authorized Dealers / manufacturers for the supply of the Items.

Name of the Item		:	CCTV
Quantity Required		:	01 No
Specification		:	(As per enclosed Schedule Annexure – I)
1.	Quotation Reference No.	:	NITT/F.NO.037/CAPEX(OH-35)/2024-25/EMD
2.	Last date and Time for receipt of quotation	:	04.11.2024 before 11 00 AM
3.	Date &Time of opening of Quotation	:	04.11.2024 at 02.00 PM
4.	EMD Amount	:	Rs. 5,000/-
5.	Validity (Days)	:	90 Days
6.	Address to which quotations are to be sent	:	The Director, National Institute of Technology, Tiruchirappalli – 620 015, Tamil Nadu, India
	Kind attention to	:	Mr. S. Arjun dharsan
	Phone	:	**94860 01146**
	E-mail	:	cworks@nitt.edu, sarjun@nitt.edu

1. Quotations should be submitted in the format given in Annexure – I and Annexure-II

2. The envelope should contain the following details:

"QUOTATION AGAINST ENQUIRY" (CCTV)

NITT/F.NO.037/CAPEX(OH-35)/2024-25/EMD

Kind attention to: Mr. S. Arjun dharsan, **ESTATE MAINTENANCE DEPARTMENT**

Last date and Time for receipt of quotation : 04.11.2024 before 11 00 AM

Terms and Conditions:

Earnest Money Deposit (EMD)
1. Earnest Money Deposit (EMD) is to be submitted through SBI collect link as below. The bids submitted without EMD will be treated as non-responsive and will be rejected. EMD shall bear no interest. 2. Bidder must fill the EMD returning Form (Annexure-III) and submit along with the quotation. 3. EMD will be returned to the unsuccessful Bidder(s) as per the purchase norms. 4. The EMD shall be forfeited if any Bidder withdraws the offer before finalization of the tender. 5. **UDYAM & NSIC** registered Micro & small enterprises are exempted from paying EMD amount as per Govt. norms (proof to be attached). **For availing EMD exemption, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. In respect of bid for Services, the bidder must be the Service provider of the offered services. Traders/Distributors/agents are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises.**

EMD amount	**Rs.5,000/-**
SBI Collect Link mode (Payment Category- NITT Tender- Earnest Money Deposit).	https://www.onlinesbi.sbi/sbicollect/icollecthome.htm?corpID=1768557
The bidder must enclose SBI collect receipt along with the quotations, failing which the bid shall be rejected without any further communication.	

1.	The quotation must be in the format furnished by NIT Tiruchirappalli and should be free from corrections/erasures. In case there is any unavoidable correction it should be properly attested. If not, the quotation will not be considered. Quotation written in pencil and incomplete will be rejected.
1.	You are invited to submit your most competitive quotation for the supply of goods according to the specifications and delivery terms as given.
2.	Bidders may send the quotations in sealed covers with the quotation reference number and last date for receipt of quotations duly superscribed on the cover. Mention the company Contact Number / E-mail id on the cover.
3.	Quotation will be opened on due date at **04-11-2024 at 02.00 PM at the Store and Purchase Section, NIT, Tiruchirappalli** in presence of the tenderers or their representatives who may wish to be present. (Any change in the date, time and venue of the quotation opening will be informed to the bidders through telephone / E-mail)
4.	The National Institute of Technology, Tiruchirappalli reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.

5.	Manufacturer's name and country of origin of materials offered must be clearly specified. Printed brochures, Purchase preference is only for Micro & Small enterprises (**MSE's**) register in **UDYAM** Portal or **NSIC** as per Ministries policy for **MSE's.** Proof to be attached
6.	Samples must be submitted where specified along with the quotations. Samples must be carefully packed, sealed and labelled clearly with enquiry number, subject and sender's name for easy identification. Rejected samples will be returned at your cost if insisted
7.	All supplies are subject to inspection and approval before acceptance. Manufacturer / supplier warranty certificates and manufacturer / Government approved lab test certificate shall be furnished along with the supply, wherever applicable
8.	National Institute of Technology, Tiruchirappalli reserves the right to modify the quantity specified in this enquiry.
9.	Startup company exempted from prior turnover & prior experience (startup certificate registered with DIPP should be enclosed)
10.	The bidder has to submit the bids in sealed envelope, (separate for each tender). Further Bidder should not send clubbing many tenders in one envelope, in such case all the bids will be rejected.
11.	**Bid Price** a. The contract shall be for the full quantity Bidders must quote for entire quantity. Each bidder shall submit only one quotation in Indian Rupee only. a. Post work orders & completion certificate should be submitted, wherever applicable. b. The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account. c. GST, packing, forwarding and delivering other allied items at the destination shall be included in the price. All such price components may be shown in the quotation. If there is no indication regarding above charges. It will be considered as inclusive of all charges. **d. If any arithmetic mistake in total / GST calculation is observed, the same shall be corrected by the purchaser with an intimation to bidder** e. In case the items in the enquiry are covered by any rate contract or any other state or central Government, it should be specified in your quotation and accepted contract rates should also be mentioned. It should be confirmed whether you could supply at the RC rates outside rate contract f. Quotations containing conditions like "subject to prior sale" may not be considered. g. Delivery period required for supplying the material should be invariably specified in the quotation **h. Bids without quoting GST (unless exempted) will be treated as invalid & disqualified.** i. **If there is a discrepancy between unit price and total price, the unit price will be considered. If there is any mismatch between figure and word, the amount in word shall prevail**.
12.	**Evaluation of quotations:** Quotations will be evaluated item-wise or lump sum basis. The purchase committee will evaluate and compare the quotations determined to be substantially responsive i.e. (i) are properly signed; (ii) Conform to the terms & conditions and specifications; and (iii) price offered are competitive.
13.	**Award of contract**

	a. The National Institute of Technology, Tiruchirappalli will award the Order for supply of Goods / Services to the bidder whose quotation has been determined to be substantially responsive, and who has offered the lowest evaluated quotation price.
	a. The Bidder should furnish the contract agreement and performance security within 15 days from the date of receipt of the order for supply of goods / services, failing which the order will be cancelled without further notice and awarded to next eligible bidder.
	b. Notwithstanding the above, National Institute of Technology, Tiruchirappalli reserves the right to accept or reject any quotations, and to cancel the bidding process, and reject all quotations at any time prior to the award of order without assigning any specific reason thereof.
	c. National Institute of Technology, Tiruchirappalli, prior to the expiration of the quotation validity period, will notify the bidder whose bid is accepted for the award of contract. The terms of accepted offer shall be incorporated in the purchase order.
14.	**Warranty: 60 Months**
15.	**Performance Security:** Security deposit should be **3%** of purchase order value in case of Performance Bank Guarantee should be valid for 60 days beyond the guarantee & warranty. The successful bidder need to submit performance security (As mentioned in Annexure –I) of purchase order value either in the form of bank guarantee or crossed demand draft drawn on any Nationalized bank in India in favor of "The Director, NIT, Tiruchirappalli" payable at Trichy. The bank guarantee / Demand Draft will be returned to the supplier after 60 days from date of successful completion of supply, installation, and the warranty period.
16.	**Payment:** 100% will be paid after Installation and satisfactory working/date of completion of service if the documents are in order. The bill should be raised in favor of "The Director, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India." with institute GST No. 33AAATN5491Q1ZZ. No advance will be provided to the supplier and installer.
17.	**Liquidity damages** If the bidder / supplier, after accepting the Purchase Order or supply of Goods / Services, fails to deliver any or all of the Goods or to perform Services within the period(s) specified in the Order, The National Institute of Technology, Tiruchirappalli shall impose penalty without assigning any reasons to the bidder / supplier a sum equivalent to 0.50 % of the total cost as indicated in the Purchase Order (which will be deemed as agreed price) for each week or part thereof of delay until actual delivery or performance is completed and such penal charges shall be limited to a maximum of 5% of the agreed price. Once the maximum is reached The National Institute of Technology, Tiruchirappalli, may proceed on its own to consider the termination / cancellation of the Order and may inform the bidder about the cancellation of the said purchase order. unless extension is obtained in writing from the office / Department on valid ground before expiry of delivery period
18.	If the deliveries are not maintained and due to that account Procuring Entity is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier
19.	Dispute clause: Any dispute relating to the Enquiring /Tender of the indented item shall be under the Hon'ble Court having its jurisdiction over Tiruchirappalli only
20.	Startup company exempted from Prior Turnover & Prior Experience (Startup certificate registered with DIPP should be enclosed)

21.	**GST as applicable**
22.	Performance Bank guarantee should be valid for 60 days beyond the guarantee & warranty and the BG submitted for EMD shall be valid for 45 days beyond bid validity period.
23.	The successful bidder should submit **Security Deposit/PBG** within 15 days from the date of placement of order. The **EMD** shall be returned only after receipt of SD. If the bidder fails to deliver the material, then the **EMD/SD** shall be forfeited.

ACCEPTANCE BY THE BIDDER

I/We hereby certify that I/We shall abide hereby the terms and conditions and the Annexures of this limited quotation.

Signature & Seal of Vendor with Date

For any details / clarifications regarding could be obtained from Stores and Purchase Section on all working days during 10 AM to 5 PM.

For further detail related to Technical specifications kindly contact **Mr. S. Arjun dharsan (**Purchase initiator) **ESTATE MAINTENANCE DEPARTMENT**, **cworks@nitt.edu, sarjun@nitt.edu**, **94860 01146**

(NB: Mention the Contact Number / E-mail on the cover. Any change in the date, time and venue of the tender opening will be informed to the bidders through telephone / E-mail)

Enclosures: 1) Specifications of the equipment   Annexure – I

           2) Price Format   Annexure - II

           3) EMD Return Format   Annexure – III

           4) Bank Mandate Form   Annexure – IV

NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI - 620 015

ESTATE MAINTENANCE DEPARTMENT

Specifications of the Equipment

Ref: NITT/F.NO.037/CAPEX(OH-35)/2024-25/EMD

Date: 14.10.2024

Evaluation Criteria:

1) Model quoted should be in compliance with BIS certification. Proof to be submitted.

2) Products quoted should be of international repute. Bidder should submit Proof of experience of installation of CCTV in reputed organization in last 5 years. Copy of workorders and completion certificate to be enclosed.

3) The MAC address of the IP cameras must be registered in the name of OEM supplying the cameras.

4) Labelled or Third Party Manufactured Products will be disqualified, it should be manufactured by the same company of brand specified products.

Sl.no	Name of the Equipment / Goods	Qty.	Make (to be specified by Supplier)	Model (to be specified by Supplier)
1	4MP Dome IP Camera with Min. 2 Years Warranty	10		
2	4MP Outdoor Bullet IP Camera with Min. 2 Years Warranty	10		
3	32 Channel Network Video Recorder (NVR) with Min. 2 Years Warranty	1		
4	8TB Surveillance Hard disks with Min. 3 Years Warranty	4		
5	8-Port PoE+ Switch	3		
6	8-Port Gigabyte Non POE Switch	1		
7	9U Network Rack	2		
8	1kVA Single Phase UPS with Min. 2 Years Warranty	3		
9	CAT 6 UTP Cable Box 305 Meter *	3		
10	25mm PVC Conduit/Casing 2 Meter *	150		
11	2" PVC Conduit/Casing 2 Meter *	70		
12	PVC Box and Accessories *	16		
13	Installation and Configuration of Camera's, NVR, PoE Switch's and Racks, UPS, CAT cable installation (CAT6 Cable Laying, Crimping, Dressing and Casing Capping from Switch Rack to Camera points), PVC conduit installation	1AU		
14	43" inch android TV with Min. 2 Years Warranty	1 no		

Technical Specification of Individual Items

1.Name of the Equipment / Goods		4 MP Dome IP Camera		
Sr.No	General Specification	Technical Specification	Compliance (Yes/No)	Remark if any

1	Sensor	1/3", 4.0 megapixel, progressive scan, CMOS		
2	Minimum Illumination	Colour: 0.003 lux (F1.6, AGC ON) 0Lux with light		
3	Day/Night	IR-cut filter with auto switch (ICR)		
4	Shutter	Auto/Manual, 1 ~ 1/100000s		
5	Adjustment angle	Pan: 0° ~ 360° Tilt: 0° ~ 80° Rotate: 0° ~ 360°		
6	S/N	>52dB		
7	WDR	120dB		
	Lens			
8	Lens Type	2.8mm @F1.6		
9	Iris	Fixed		
10	Field of View (H)	112.9°		
11	Field of View (V)	59.1°		
12	Field of View (D)	121.2°		
	Illuminator			
13	IR Range	Up to 30m (98ft) IR range		
14	White Light Range	Up to 30m (98ft) white light range		
15	Wavelength	IR : 850nm		
16	IR On/Off Control	Auto/Manual		
	Video			
17	Video Compression	Ultra 265, H.265, H.264, MJPEG		
18	H.264 Code Profile	Baseline profile, Main profile, High profile		
19	Frame Rate	Main Stream: 4MP (2688*1520), Max 25fps;4MP (2560*1440), Max 25fps; 3MP (2304*1296), Max 30fps; 1080P (1920*1080), Max 30fps; 720P (1280*720), Max 30fps; Sub Stream: 720P (1280*720), Max 30fps; D1 (720*576), Max 30fps; 640*360,Max 30fps;		
20	Video Bit Rate	128 Kbps~16 Mbps		
21	U-code	Supported		
22	OSD	Up to 4 OSDs		

23	Privacy Mask	Up to 4 areas		
24	ROI	Up to 8 areas		
25	Video stream	Dual streams		
	Image			
26	White Balance	Auto/Outdoor/Fine Tune/Sodium Lamp/Locked/Auto2		
27	Digital Noise Reduction	2D/3D DNR		
28	Smart IR	Support		
29	Flip	Normal/Vertical/Horizontal/180°/90°Clockwise/90°Anti-clockwise		
30	HLC	Support		
31	BLC	Support		
32	Defog	Digital Defog		
	Events			
33	Basic Detection	Cross line, intrusion (based on human body detection), Motion detection, Ultra motion detection, tampering alarm, audio detection		
34	General Function	Watermark, IP address filtering, access policy, ARP protection, RTSP authentication, user authentication, HTTP authentication		
	Audio			
35	Audio Compression	G.711U, G.711A		
36	Audio Bitrate	64 Kbps		
37	Two-way Audio	Support		
38	Suppression	Support		
39	Sampling Rate	8KHZ		
	Storage			
40	Edge Storage	Micro SD, up to 128 GB		
41	Network Storage	ANR,NAS(NFS)		
	Network			
42	Protocols	IPv4, IPv6, IGMP, ICMP, ARP, TCP, UDP, DHCP, RTP, RTSP, RTCP, RTMP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP, SSL/TLS, 802.1x, SNMP		
43	Compatible Integration	ONVIF (Profile S, Profile G, Profile T), API, SDK		

44	User/Host	Up to 32 users. 2 user levels: administrator and common user		
45	Security	Password protection, Strong password, HTTPS encryption, Export operation logs, Basic and digest authentication for RTSP, Digest authentication for HTTP, TLS 1.2, WSSE and digest authentication for ONVIF		
46	Client	EZStation EZView EZLive		
47	Web Browser	Plug-in required live view: IE 10 and above, Chrome 45 and above, Firefox 52 and above, Edge 79 and above Plug-in free live view: Chrome 57.0 and above, Firefox 58.0 and above, Edge 16 and above		
	Interface			
48	Audio I/O	N/A		
49	Alarm I/O	N/A		
50	Serial Port	N/A		
51	Built-in Mic	Support		
52	Built-in Speaker	Support		
53	WIFI	N/A		
54	Network	1 * RJ45 10M/100M Base-TX Ethernet		
55	Video Output	N/A		
	Certification			
56	EMC	CE-EMC (EN 55032: 2015+A1:2020,EN 61000-3-3: 2013+A1: 2019,EN IEC 61000-3-2: 2019+A1: 2021,EN 55035: 2017+A11:2020) FCC (FCC CFR 47 part15 B, ANSI C63.4-2014)		
57	Safety	CE LVD (EN 62368-1:2014+A11:2017) CB (IEC 62368-		

		1:2014) UL (UL 62368-1, 2nd Ed., Issue Date: 2014-12-01)		
58	Environment	CE-RoHS (2011/65/EU;(EU)20 15/863)		
59	Protection	IP67 (IEC 60529:1989+AMD1: 1999+AMD2:2013) IK10 (IEC 62262:2002)		
	General			
60	Power	DC 12V±25%, PoE (IEEE 802.3af) Power consumption: Max 5.0W		
61	Power Interface	Ø 5.5mm coaxial power plug		
62	Dimensions (Ø x H)	Φ118 x 96mm (Φ4.6" x 3.8")		
63	Weight	0.30kg (0.66lb)		
64	Working Environment	-30°C ~ 60°C (-22°F ~ 140°F), Humidity: ≤95% RH (non- condensing)		
65	Strorage Environment	-30°C ~ 60°C (-22°F ~ 140°F), Humidity: ≤95% RH (non- condensing)		
66	Surge Protection	4KV		
67	Reset Button	N/A		
68	Warranty	2 Years Comprehensive replacement Warranty		

2.Name of the Equipment / Goods		4 MP Outdoor Bullet IP Camera		
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Sensor	1/3", 4.0 megapixel, progressive scan, CMOS		
2	Minimum Illumination	Colour: 0.003 lux (F1.6, AGC ON) 0 Lux with light		
3	Day/Night	IR-cut filter with auto switch (ICR)		
4	Shutter	Auto/Manual, 1 ~ 1/100000s		
5	Adjustment Angle	Pan: 0° ~ 360° Tilt: 0° ~ 90° Rotate: 0° ~ 360°		

6	S/N	>52dB		
7	WDR	120dB		
	Lens			
8	Lens Type	2.8mm @F1.6		
9	Iris	Fixed		
10	Field of View (H)	112.9°		
11	Field of View (V)	59.1°		
12	Field of View (D)	121.2°		
	Illuminator			
13	IR Range	Up to 30m (98ft) IR range		
14	White Light Range	Up to 30m (98ft) white light range		
15	Wavelength	IR : 850nm		
16	IR On/Off Control	Auto/Manual		
	Video			
17	Video Compression	Ultra 265, H.265, H.264, MJPEG		
18	H.264 Code Profile	Baseline profile, Main profile, High profile		
19	Frame Rate	Main Stream: 4MP (2688*1520), Max 25fps;4MP (2560*1440), Max 25fps; 3MP (2304*1296), Max 30fps; 1080P (1920*1080), Max 30fps; 720P (1280*720), Max 30fps; Sub Stream: 720P (1280*720), Max 30fps; D1 (720*576), Max 30fps; 640*360,Max 30fps;		
20	Video Bit Rate	128 Kbps~16 Mbps		
21	U-code	Supported		
22	OSD	Up to 4 OSDs		
23	Privacy Mask	Up to 4 areas		
24	ROI	Up to 8 areas		
25	Video stream	Dual streams		
	Image			
26	White Balance	Auto/Outdoor/Fine Tune/Sodium Lamp/Locked/Auto2		
27	Digital Noise Reduction	2D/3D DNR		
28	Smart IR	Support		
29	Flip	Normal/Vertical/Horizontal/180°/90°Cloc		

		kwise/90°Anti-clockwise		
30	HLC	Supported		
31	BLC	Supported		
32	Defog	Digital Defog		
	Events			
33	Basic Detection	Cross line, intrusion(based on human body detection),motion detection, Ultra motion detection, tampering alarm, audio detection		
34	General Function	Watermark, IP address filtering, access policy, ARP protection, RTSP authentication, user authentication, HTTP authentication		
	Audio			
35	Audio Compression	G.711U, G.711A		
36	Audio Bitrate	64 Kbps		
37	Two-way Audio	Support		
38	Suppression	Support		
39	Sampling Rate	8KHZ		
	Storage			
40	Edge Storage	Micro SD, up to 128GB		
41	Network Storage	ANR, NAS(NFS)		
	Network			
42	Protocols	IPv4, IPv6, IGMP, ICMP, ARP, TCP, UDP, DHCP, RTP, RTSP, RTCP, RTMP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP, SSL/TLS, 802.1x, SNMP		
43	Compatible Integration	ONVIF (Profile S, Profile G, Profile T), API , SDK		
44	User/Host	Up to 32 users. 2 user levels: administrator and common user		

45	Security	Password protection, Strong password, HTTPS encryption, Export operation logs, Basic and digest authentication for RTSP, Digest authentication for HTTP, TLS 1.2, WSSE and digest authentication for ONVIF		
46	Client	EZStation EZView EZLive		
47	Web Browser	Plug-in required live view: IE 10 and above, Chrome 45 and above, Firefox 52 and above, Edge 79 and above		
48		Plug-in free live view: Chrome 57.0 and above, Firefox 58.0 and above, Edge 16 and above		
	Interface			
49	Audio I/O	N/A		
50	Alarm I/O	N/A		
51	Serial Port	N/A		
52	Built-in Mic	Support		
53	Built-in Speaker	Support		
54	WIFI	N/A		
55	Network	1 * RJ45 10M/100M Base-TX Ethernet		
56	Video Output	N/A		
	Certification			
57	EMC	CE-EMC (EN 55032: 2015+A1:2020,EN 61000-3-3: 2013+A1: 2019,EN IEC 61000-3-2: 2019+A1: 2021,EN 55035: 2017+A11:2020) FCC (FCC CFR 47 part15 B, ANSI C63.4-2014)		
58	Safety	CE LVD (EN 62368-1:2014+A11:2017) CB (IEC 62368-1:2014) UL (UL 62368-1, 2nd Ed., Issue Date: 2014-12-01)		

59	Environment	CE-RoHS (2011/65/EU;(EU)2015/863);		
60	Protection	IP67 (IEC 60529:1989+AMD1:1999+AMD2:2013)		
	General			
61	Power	DC 12V±25%, PoE (IEEE 802.3af) Power consumption: Max 7.5W		
62	Power Interface	Ø 5.5mm coaxial power plug		
63	Dimensions (L × W × H)	191×75×74mm (7.5"×2.9"×2.9")		
64	Weight	0.41kg (0.90lb)		
65	Working Environment	-30°C ~ 60°C (-22°F ~ 140°F), Humidity: ≤95% RH (non-condensing)		
66	Storage Environment	-30°C ~ 60°C (-22°F ~ 140°F), Humidity: ≤95% RH (non-condensing)		
67	Surge Protection	4KV		
68	Reset Button	N/A		
69	Warranty	3 Years Comprehensive replacement Warranty		

3.Name of the Equipment / Goods		32 Channel Network Video Recorder (NVR)		
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	**Decoding**	**Description**		
1	Decoding Format	Ultra 265, H.265, H.264		
2	Decoding Capability	1 x 12MP@30, 2 x 4K@30, 5 x 4MP@30, 10 x 1080P@30, 16 x 720P@30		
3	Audio Compression	G.711A, G.711U		
	Network	**Description**		
4	Incoming Bandwidth	320Mbps		
5	Outgoing Bandwidth	320Mbps		
6	Remote Users	128		
7	Protocols	TCP/IP;P2P;UPnP;NTP;DHCP;PPPoE;HTTP;HTTPS;DNS;DDNS;SNMP;SMTP;RTSP		
8	Browser(Plugin)	Windows:IE(IE10/11), Firefox (version		

		52.0 and above), Chrome(version 45 and above), Edge(version 79 and above)		
	Video/Audio Input	**Description**		
9	IP Video Input	32-ch		
10	RCA Audio Input	1-ch		
	Video/Audio Output	Description		
11	HDMI Output	HDMI:4K(3840x2160)/30Hz, 1920x1080/60Hz, 1920x1080/50Hz, 1600x1200/60Hz, 1280x1024/60Hz, 1280x720/60Hz, 1024x768/60Hz		
12	VGA Output	VGA:1920x1080/60Hz, 1920x1080/50Hz, 1280x1024/60Hz, 1280x720/60Hz, 1024x768/60Hz		
13	RCA Audio Output	1-ch		
14	Liveview Display	1/4/6/8/9/16		
15	Corridor Mode Screen	3/4/5/7/9/10/12/16		
	Two-way Audio	**Description**		
16	Two-way Audio	1-ch, RCA(Using the audio input and output)		
	Snapshot	**Description**		
17	FTP/Schedule/Event Snapshot	4-ch snapshot, up to D1 resolution		
	Recording	**Description**		
18	Recording Resolution	8MP/6MP/5MP/4MP/3MP/1080P/960P/720P/D1/2CIF/CIF		
19	Synchronous Playback in Local	32-ch		
	Smart	**Description**		
20	VCA Detection by IPC	Face Detection;SIP(Intrusion Detection, Cross Line Detection, Enter Area, Leave Area);Ultra Motion Detection(UMD);People Counting(People Flow Counting, Crowd Density Monitoring)		
21	VCA Search	Motor Vehicle Search;Non-Motor Vehicle Search;Human Body Search;General		

		Search;People Counting Report		
22	Smart by IPC	Total 8-ch(Face Detection, SIP, UMD)		
	Alarm	**Description**		
23	General Alarm	Defocus Detection;Scene Change Detection;Object Left Behind;Object Removed;Auto Tracking;Motion Detection;Tampering;Human Body Detection;Video Loss;Alarm Input;Audio Detection		
24	Alert Alarm	IP Conflict;Network Disconnected;Disk Offline;Disk Abnormal;Illegal Access;Hard Disk Space Low;Hard Disk Full;Recording/Snapshot Abnormal		
	Hard Disk	**Description**		
25	SATA	4 SATA Interfaces		
26	Capacity	Up to 10TB for each HDD(The maximum HDD capacity varies with environment temperature)		
	External Interface	**Description**		
27	Network Interface	2 RJ45 10M/100M/1000M self-adaptive Ethernet Interface		
28	USB	Front panel: 1 x USB2.0;Rear panel: 1 x USB3.0, 1 x USB2.0		
29	RS232	1		
30	Alarm In	8-Ch		
31	Alarm Out	2-Ch		
32	Power Supply	DC 12V/3.3A		
33	Power Switch	Support		
34	Working Environment	Description		
35	Working Temperature	-10 °C ~ 55 °C (14 °F ~ 131 °F)		
36	Working Humidity	≤ 90% RH (non-condensing)		
37	Power Consumption (without HD D)	≤ 15W		

	Certification	Description		
38	Certification	CE;FCC;UL;		
39	CE	EN 55032: 2015, EN 61000-3-3: 2013, EN IEC 61000-3-2: 2019, EN 55035: 2017		
40	FCC	Part15 Subpart B, ANSI C63.4		
41	Warranty	2 Years Comprehensive replacement Warranty		

4.Name of the Equipment / Goods			8 TB Surveillance Hard disks	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Capacity	8 TB		
2	Type	Internal		
3	Form Factor	3.5		
4	Interface	SATA 6 Gb/s		
5	Recording technology	CMR		
6	Cameras Support	Min 64		
7	AI Channels / Streams	Min 32		
8	Data Transfer Rate	Min 175 MB/s		
9	Cache	Min 256 MB		
10	Load/Unload Cycles	Min 600,000		
11	Workload Rate	Min 180 TB/year		
12	MTBF	Min 1,000,000 hours		
13	Warranty	3 Years Comprehensive replacement Warranty		

5.Name of the Equipment / Goods			8-Port PoE Switch	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Interfaces	Min 8x 10/100/1000 Mbps RJ45 Ports (Auto Negotiation/Auto MDI/MDIX)		
2	PoE Ports	Min 8x PoE+ RJ45 Ports		
3	PoE Power	Min 120W		
4	PoE Standard	802.3at/af		
5		IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3x, IEEE 802.3af, IEEE 802.3at, IEEE 802.1q,		
	Standards and Protocol Support	IEEE 802.1p		
6	Fans	Min 1x Fan		
7	Switching Capacity	Min 18 Gbps		
8	Packet Forwarding Rate	Min 14 Mbps		

Sr.No	General Specification	Technical Specification	Compliance (Yes/No)	Remark if any
9	MAC Address Table	Min 8K V4		
10	Packet Buffer Memory	Min 4 Mbit		
11	Software Feature	Queue Weight Config		
		Bandwidth Control		
		Min 16x IP Interfaces Min 32x Static Routing DHCP Relay		
		Min 4K VLAN Groups 802.1Q tag VLAN		
		802.1X Port based authentication IP/IPv6-MAC Binding DHCP Snooping IP/Port/MAC based access control Automatic Device Discovery		
		Network Monitoring Event Warnings		
12	Management	Web-based GUI		
		Command Line Interface (CLI) SNMPv1/v2c/v3		
13	Mount Compatibility	Rack Mounted		
14	Power supply	Min 1x 100 to 240 VAC, 50 ~ 60 Hz		
15	Accessories	Cables and Standard accessories		
16	Warranty	1 Year Comprehensive replacement Warranty		

6.Name of the Equipment / Goods			8-Port Gigabyte Switch	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Network Ports	8 x 10/100/1000/Mbps RJ45 Ports AUTO Negotiation/AUTO MDI/MDIX		
2	Backplane Bandwidth	16GBPS		
3	Transmission Distance	100M		
4	Packet Forwarding Rate	11.9Mbps		
5	Network Standard	Complies with IEEE802.3, IEEE802.3u.IEEE802.3ab standards.		
6	Switch Capacity	16GBPS		
7	Forwarding Mode	Store and forward		
8	Network medium	RJ-45		
9	Buffer	384Kbyte		

10	Ethernet Port Light	8 leds		
11	LEDs Indicator	8 leds		
12	Surge Protection	2KV		
13	Lightning Protection	2KV		
14	Anti-thunder Level	2KV		
15	Operating Temperature	0° ~ 40°C (32°F ~ 104°F)		
16	Operating Humidity	10%~90% non-condensing		
17	Storage Temperature	-20°C ~ 70°C		
18	Storage Humidity	5%~90% non-condensing		
10	Power Supply	5V DC /1A.		
20	Power Consumption	5W		
21	Dimensions	129.6*58.6*21.4mm		
22	Weight	79.5g		
23	Warranty	1 Year Comprehensive replacement Warranty		

7.Name of the Equipment / Goods			9U Network Rack	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Rack Mount Size	9RU		
2	Rack Standard	DIN 41494 or equivalent standard		
3	Frame	Steel		
4	Construction	Welded		
5	Standard Finish	Powder coated		
6	Top & Bottom Cover	Welded to Frame with Cable entry exit cut outs		
7	Front Door	Lockable Toughened Glass Door		
8	Mounting Angle	19" Mounting angles made of formed steel		
9	Power Distribution Unit	Min 5x 6A Multi Standard Socket PDU with Indicator and 06 Amp Fuse		
10	Load Capacity	Min 35kgs		
11	Colour	Grey & White / Off-White		
12	Accessories	Standard accessories and Rack Screws, Nuts		

8.Name of the Equipment / Goods			1kVA Single Phase UPS	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Main Input Voltage Range	140-280 V		
2	Main Output Voltage	230 / 220 V		
3	Other Output Voltage	230 / 220 V		
4	Rated power (W)	Min 600 W		

5	Rated power (VA)	Min 1000 VA		
6	Output connection type	Min 4x 6A Socket		
7	Cable Length	Min 1.2 Meter		
8	Battery type	Lead-acid non-Maintenance battery		
9	Battery voltage	24 V		
10	Battery capacity	Min 2x 7 Ah		
11	Battery Placement	In-Built		
12	Transfer time	Max 4ms		
13	Indicator	On Mains, Main Fails, On Battery, Fault, Overload		
14	Operating Temperature	Min 0 - 40 ° C		
15	Certification	BIS		
16	Accessories	Standard accessories and Cables		
17	Warranty	2 Years Comprehensive replacement Warranty including battery		

9.Name of the Equipment / Goods			CAT 6 UTP Cable Box 305 Meter	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Length	Min 305 Meter		
2	Standard	23 AWG Solid bare Copper (4 pair)		
3	Insulation	High Density Polyethylene		
4	Standard	ISO/IEC 11801		
5	PoE Application Compatibility	Yes		

10.Name of the Equipment / Goods			25mm PVC Conduit/Casing 2 Meter	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Length	Min 2 Meter		
2	Conductor	ISI		
3	Colour	White		

11.Name of the Equipment / Goods			2" PVC Conduit/Casing 2 Meter	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Length	Min 2 Meter		
2	Standard	ISI		
3	Colour	White		

12.Name of the Equipment / Goods	PVC Box and accessories

14.Name of the Equipment / Goods			43" Android TV	
Sr.No	**General Specification**	**Technical Specification**	**Compliance (Yes/No)**	**Remark if any**
1	Refresh Rate	60 Hz		
2	TV Operating System	Android TV		

3	Video Formats	MPEG2, MPEG4		
4	Screen Resolution	1920 x 1080 - FHD		
5	Screen Size (Diagonal)	109.22 cm - 43 inch		
6	Display Type	Full HD		
7	Stream Content from devices	Yes		
8	Connect to DVD Players via	HDMI		
9	Wi-Fi	Yes		
10	Additional Connectivity	Ethernet, AV, Optical, 3.5mm		
11	Audio Jack	3.5 mm		
12	No. of USB Ports	2		
13	No of HDMI Ports	2		
14	USB	Yes		
15	Connect to Home Theatre via	Digital Optical		
16	Power Consumption	75 Watt		
17	Power Supply	100 - 240V, 50/60Hz		
18	Features	Premium Metal Bezel-less Vivid Picture Engine DTS:X, DTS Virtual: X, Dolby Audio PatchWall 4 with IMDb Ratings Dual Band Wi-Fi (MIMO), Bluetooth 5.0 Ok Google, Chromecast built-in, Play Store In the box & Warranty		
19	TV Warranty	2 Year Comprehensive replacement Warranty		

S.No	Other requirements related to the equipment	NITT Requirement	Supplier commitment
1.	Installation required	**Yes**	
2.	Warranty (in Month)	**60 Months**	
3.	Comprehensive AMC required	**No**	
4.	Delivery Period (Weeks)	**2- 3 Weeks**	
5.	Shipment terms		**At NIT-T**
6.	Performance Security in %		**3%**
7.	Payment Terms		**100% Payment after satisfactory delivery/Installation**
8.	EMD Amount (2 to 5)%		Rs. 5,000 /-

Signature & Seal of Vendor with Date

Note:

Specification of the Supplier should be given in detail, single word confirmation like Complied / No / same will be treated as non - responsive Bid and summarily rejected.

Proof for the supplier's specification must be enclosed along with the quotations. (catalogue, brochure, and product website link if any)

NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI - 620 015

ESTATE MAINTENANCE DEPARTMENT

<u>**Annexure- II**</u>

<u>**PRICE BID FORMAT FOR BIDDERS**</u>

Quotation reference No. & Date : NITT/F.NO.037/CAP-EX(OH-35)/2024-25/EMD

Bidder's Offer No. & Date :

S. No.	Description of item	Unit (Set / No)	QTY	Rate / Qty in Rs. (excluding GST)	GST in Rs.			Total Value + GST in Rs.
					SGST	CGST	IGST	
1.	**Supply portion** (The price indicated shall be exclusive of all accessories, spares etc. as given in the scope of supply)	<u>Nos</u>	<u>01</u>					
2.	Other accessories / spares etc. as given in scope of supply (Individual item-wise break-up price shall be attached as an annexure to this price bid format.)							
3.	Installation and Commissioning (extra, if any)		<u>Yes</u>					
4.	Packing & Forwarding charges (extra, if any)							
5.	Freight & Transit insurance charges, extra, if any							
6.	Total price							
7.	Value of Annual Maintenance Contract							
8.	**Net cost to be paid by NIT-T**							

Signature & Seal of Vendor

Note: The price quoted should be in Typed format only as per the above form. Hand written quotes will be rejected. No row shall be left blank, Kindly mention NA in case the item is "Not Applicable". If this format is not used or any column is left blank, then the bid will be rejected. AMC Value will not consider for arriving L1 bidder.

(TO BE PRINTED IN LETTER PAD OF THE FIRM)

EMD Returning Form

To
The Director
National Institute of Technology,
Tiruchirappalli – 620 015

Sub: Returning EMD amount

Sir / Madam,

    Our firm has participated in the tender / quotation enquiry No mentioned below and produced the EMD amount through DD, details of the DD are given below.

Tender / Quotation Reference No	
EMD amount	
DD Number	
DD issued Bank	
Date of DD	

It is requested to return the EMD amount to our firm after completion of the purchase to the below mentioned Bank account.

Account Name	
Bank Account Number	
IFSC code	
Bank	

Signature with Seal and Date

(TO BE PRINTED IN LETTER PAD OF THE FIRM)

<u>Annexure – IV</u>

MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER

Date: /   /

To

The Director,
National Institute of Technology,
Tiruchirappalli – 620 015, Tamil Nadu

Sub	:	Authorization for release of payment / dues from National Institute of Technology, Tiruchirappalli through Electronic Fund Transfer/RTGS Transfer.

1. Name of the Party / Firm / Company / Institute   :

2. Address of the Party   :

3. City_____Pin Code_____

4. E-Mail_____Mobile No:_____

5. Permanent Account Number_____

6. Particulars of Bank:

Bank Name:		Branch Name:	
PIN Code:		Branch Code:	
IFS Code:(11 digit alpha numeric code)			
Account Type	Savings	Current	Cash Credit
Account Number:			

DECLARATION

I hereby declare that the particulars given above are correct and complete. If any transaction delayed and not effected for reasons of incomplete or incorrect information I shall not hold Director, National Institute of Technology Tiruchirappalli responsible. I also undertake to advise any change in the particulars of my account to facilitate updating of records for purpose of credit of amount through NEFT/RTGS Transfer.

Place:_____ Date: _____

Signature & Seal of the Authorized Signatory of the Party