

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DHARWAD

3rd Floor, IT Park, Opp. To Glass House, Hubballi-580029

Website: www.iiitdwd.ac.in



TENDER DOCUMENT

[Technical bid and Price bid system – e-Procurement mode] e-Tender Event No:
IIITDWD/2020/ET/09

Tender Notification. Ref No.: IIITDWD/MMU/CCTV/NIT/210/2020/4479

Dated: 09/12/2020

Name of the Work:	Providing, Supplying, Installing, Testing, Deployment and Commissioning of CCTV at IIIT Dharwad campus.
Estimated amount put to tender	Rs. 14,00,000/-
EMD amount	Rs. 70,000/-
Application Fee	Rs. 5,000/-
Processing Fee	As per mhrd.euniwizarde.com
Time for supply of item after release of purchase order	30 Days
Last date for submission of e- tender	24/12/2020, 15:00 IST
Address for Submission of Tender	https://mhrd.euniwizarde.com
Date /Time of opening of Technical bid	24/12/2020; 15:30 IST
Date of opening of Financial bid	Will be notified after evaluation of the Technical Bids

Note: EMD shall be remitted through RTGS/ NEFT and its acknowledgement shall be Uploaded in e-procurement portal while submitting e-tenders.

Detailed procedure for submission of e-tenders is available in the website <https://mhrd.euniwizarde.com>

NOTICE INVITING TENDER (NIT)

Tender Notification. Ref No.: IIITDWD/MMU/CCTV/NIT/210/2020/4479

Dated: 09/12/2020

The Indian Institute of Information Technology-Dharwad, Karnataka (in short – IIIT-Dharwad) is an Institute of National Importance by act of Parliament under PPP Mode imparting IT Education and engaged in Research Activities. It is proposed to procure the Servers and for its Data Centre at IIIT Dharwad new campus.

Online Tenders (<https://mhrd.euniwizarde.com/>) are invited for the following items in two cover system (i.e., Technical bid and financial bid) subject to the following terms and conditions, from the reputed manufacturers or its authorized dealers so as to reach this office on or before scheduled date and time. The tender (Technical bid) will be opened online on the due date as mentioned. Bidders can verify their bid status through online portal <https://mhrd.euniwizarde.com/>. The financial bid of only such bidders whose technical bid is accepted shall be opened on the same day or later pre-informed date.

Name of the Work:	Providing, Supplying, Installing, Testing, Deployment and Commissioning of CCTV at IIIT Dharwad campus
Estimated amount put to tender	Rs. 14,00,000/-
EMD amount	Rs.70,000/-
Application Fee	Rs.5,000/-
Processing Fee	As per mhrd.euniwizarde.com
Time for supply of item after release of purchase order	30 Days
Last date for submission of e- tender	24/12/2020, 15:00 IST
Address for Submission of Tender	https://mhrd.euniwizarde.com
Date of opening of Technical bid	24/12/2020; 15:30 IST
Date of opening of Financial bid	Will be notified after evaluation of the Technical Bids

Note: Institute shall not be responsible for any postal delay about non-receipt /non-delivery of the bids or due to wrong addressee.

SECTION 1: INSTRUCTION TO BIDDER (ITB)	
1.	The bid should be submitted in two covers System-Technical Bid and Financial Bid through https://mhrd.euniwizarde.com .
2.	Technical Bid: Documents related to the Technical Bid should be submitted in PDF format through e-Tendering portal https://mhrd.euniwizarde.com .
3.	<p>The Technical Bid should contain the following documents:</p> <ol style="list-style-type: none"> License certificate for manufacture /supply of the item & Factory license. List of Owner/partners of the firm and their contact numbers (Bidder Information) Copy of GST certificate & PAN No. Catalogue of the Product with detailed product specifications. List of Service Centres at Hubballi/Dharwad/Karnataka. List of customers with contact details including satisfactory report for supply and installation of the materials from the customers end. Warranty Period Offered for the tendered item to be specified. If the Warranty period is not conforming with the schedule of requirements given in section 3 of the document, the bid is liable to be treated as non-responsive and rejected. Undertaking that the successful BIDDER agrees to give a Performance Security amounting to 5% of the purchase order value in favour of “The Director, IIIT Dharwad”. The copy of the Balance sheet, Profit & Loss A/c., Trade or Manufacturing A/c for the last 3 years should be enclosed The Bidder/Manufacturer shall have successfully executed similar work in the last three years i.e., Single Order worth 80% of this tender estimate ‘or’ Two Order worth 45% of this tender estimate ‘or’ Three order worth 35% of this tender estimate. Duly filled in the checklist should be submitted along with the Technical Bid. Contract form given in SECTION 5 needs to be submitted. Earnest Money Deposit (EMD): EMD should be remitted in favour of IIIT Dharwad. EMD shall be paid through online. Bidder shall select the payment option as “DD/E-Payment (Net Banking-Debit Card-Credit card etc)” to pay the EMD wherever applicable and enter details of the instrument. Digitally signed tender document should be attached during bid submission. <p>Note: Tenders received without the EMD will be rejected. The EMD of successful bidder shall be retained (and shall be adjusted to the Security deposit). EMD shall bear no interest. EMD of the bidder is liable for forfeiture as per the terms of the tender document in case of any default. The EMD will be returned to the BIDDERS(s) whose offer is not accepted by IIIT Dharwad within one month from the date of placing the purchase order(s) on the selected BIDDER(s).</p>
4.	Financial bid: The bidders should submit their financial bid in the BoQ format that has been provided with the tender in the form of an Excel sheet in the online bid through e-Tendering portal https://mhrd.euniwizarde.com . After evaluation of technical bid, the technically successful bidders will be qualified for Financial bid.
5.	Bid Evaluation: On the due date, the Technical bids will be opened and referred to the Committee which is duly constituted by the Director, IIIT Dharwad. The committee will go through the technical aspects of the tender and recommend shortlisted firms. The recommendation of the committee is final and binding on all the parties. The committee may visit the manufacturing site to assess the capabilities to manufacture the tendered items as per the specifications. In case of any remarks/default noted, the EMD will be forfeited even if pre-qualified.
6.	Quoting of Price(s): Price quoted should be in Indian Rupees, free delivery to IIIT Dharwad including loading/unloading

7.	The Bid will be accepted only from the manufacturers (OEM) or its authorized supplier.
8.	The incomplete or conditional tender will be rejected.
9.	The Institute reserves the right to cancel at any time after acceptance of the tender with a notice. The Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which might have derived from the execution of the supply.
10.	<p>Performance Security: The successful bidder shall deposit performance security of 5 % of the quoted price in the form of Bank Guarantee / Demand Draft / Fixed Deposit Receipt of any scheduled bank drawn in favour of The Director, IIIT Dharwad, payable at Dharwad. In case the bidder fails to deposit the said Performance Security within the stipulated period, including the extended period if any, the Earnest Money Deposited by the bidder shall be forfeited automatically without any notice. Please note the following points.</p> <ol style="list-style-type: none"> Successful bidder should submit performance Security as prescribed above to the purchase Section, IIIT Dharwad, on or before 30 days from the date of issue of order acknowledgment. Performance Security shall be for the due and faithful performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful bidder and the purchaser under the terms and conditions of acceptance to tender. The successful bidder is entirely responsible for the due performance of the contract in all respects according to the terms and conditions of the tender. The validity of the Performance Security must cover the warranty period plus two months. In case of imported goods, the Indian agent must furnish Performance Bank Guarantee in Indian Rupees only from Scheduled Bank.
11.	The validity of bids: The rate quoted should be valid for a minimum of 180 days. No claim for escalation of the rate will be considered after opening the Tender.
12.	Warranty/Guarantee & On-site skill support: On-site comprehensive warranty will be effective from the date of successful installation, testing and commissioning. The OEMs/Authorized Distributors and Dealers must attach a certificate of sales and service facilities, escalation support for on-call service or station engineer, etc.
13.	Imports: In case, equipment is to be imported, the Indian agent should furnish authorization certificate by the principles abroad for submission of the bid in response to this Notice Inviting Tender.
14.	The Institute reserves the right to cancel or reduce the quantity included in the schedule of requirements at any time after acceptance of the tender with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full, but he did not derive in consequence of the foreclosure of the whole or part of the works.
15.	<p>Cancellation of Tender: Notwithstanding anything specified in this tender document, IIIT Dharwad in its sole discretion, unconditionally and without having to assign any reasons, reserves the rights:</p> <ol style="list-style-type: none"> To accept OR reject lowest tender or any other tender or all the tenders. To accept any tender in full or in part. To reject the tender offer not conforming to the terms of the tender. To give purchase preference to Public Sector undertakings when applicable as per Govt. Policy/ Guidelines.
16.	Delivery Period: The Delivery Period/Time shall be deemed to be the essence of the Contract and delivery must be completed not later than such date(s). If the Supplier does not perform its obligations within the Delivery Period/Date mentioned in the Contract, the same would constitute the breach of the Contract and the Institute shall have the right to cancel or withdraw

	the Contract for the unsupplied portion after the expiry of the original or extended delivery date or period stipulated in the Contract. Such cancellation of the contract on account of non - performance by the Supplier would entitle the Buyer to forfeit the EMD / Performance Security besides other actions such as debarment from the Institute as per GFR 2017
17.	Liquidated Damages: Timely delivery is the essence of contract and hence if the Supplier fails to deliver Goods within the original/extended delivery period(s) specified in the contract, the Institute will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 1% per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value without any controversy/dispute of any sort whatsoever.
18.	Terms of Payment: <ol style="list-style-type: none"> Payment within 30 days from the date of delivery and Acceptance Certificate and satisfactory performance certificate from concerned Department/Section/Committee. Payment will be made by Standard Payment terms and conditions of IIIT Dharwad as per tender document only. Any request for a change in payment terms and conditions will not be accepted. If the above conditions are not acceptable then tender will be rejected.
19.	Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bid as to the nature of the installation site, the means of access to the site and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the installation to be done and local conditions and other factors having a bearing on the execution of the bid.
20.	If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the bidder.
21.	The rate quoted by the bidder shall be firm throughout the contract period and there shall be no revision of the rates for any reasons whatsoever. It should be clearly understood that any claim for changes will not be entertained in any case once the bids are opened.
22.	One bid per bidder: Each bidder shall submit only one bid either by himself or by representing a firm.
23.	Cost of bid: The bidder shall bear all costs associated with the preparation and submission of his bid. The Institute in no case shall be responsible or liable for those costs.
24.	The bidder shall not make or cause for any alteration, erasure or obliteration to the text of the tender document.
25.	The Institute will declare a bidder ineligible, either indefinitely or for a specified period of time, at the sole discretion of the Institute, for the award of contract/ participating in any other tender, if at any time the Institute determines that he has furnished false information/ engaged in corrupt or fraudulent practices.
26.	Determination of successful bidder: The technically qualified bidder whose offer is evaluated as the lowest total bid shall be the successful bidder subject to its meeting the statutory requirements.
27.	Price variation: The rate quoted by the bidder shall be firm throughout the contract period. No price variation clause is applicable to this contract.
28.	CANVASSING: <ol style="list-style-type: none"> Canvassing in connection with tenders is strictly prohibited and the Tenders submitted by the Tenderers who resort to canvassing shall be liable to rejection. Subject to the provisions concerning clarification of Bids, no Bidder shall contact the purchase committee on any matter relating to its bid from the time of the bid opening up to the time that the contract is awarded.

	<p>c. Any effort by the Bidder or Bidder's representative however described to influence the purchase committee in any way concerning scrutiny, consideration, evaluation of the Bid(s) or decision concerning award of contract shall entail rejection of Bid and action against the bidder as deemed fit.</p> <p>d. The purchase committee will deal with the Bidder on a Principal basis, without involvement in any manner in India or abroad of any agent or consultant or associate or another person howsoever described.</p>
29.	Legal Matter: All disputes are subject to Dharwad Jurisdiction only.
30.	The Institute reserves the right to visit to the factory before or after issue of supply order to satisfy itself regarding quality of production. In case of any remarks /default noted, the EMD will be forfeited even if pre-qualified.
31	The Institute reserves the right to cancel or reduce the quantity included in the schedule of requirements at any time after acceptance of the tender with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full, but he did not derive in consequence of the foreclosure of the whole or part of the works.
32	Amendment of Tender document: At any time prior to the last date for receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Tender document by an amendment.
33	The bids shall be written in English language and any information printed in other language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid, the English translation shall govern.
34	The bidder/supplier should have manufacturing unit/ service centre in Karnataka.
35	The Institute reserves the right to accept or reject the item based on the specification and requirement.

SECTION 2: CONDITIONS OF CONTRACT.	
1.	The rates should be quoted preferably FOR destination including Providing, Supplying, Installing, Testing, Deployment and Commissioning within India.
2.	In case of import both CIF and/ or FOB rate should be quoted. All components of expenditure to arrive at Hubli/Dharwad need to be explicitly specified.
3.	The bidder shall indicate/submit the excise duty exemption for the goods if applicable.
4.	The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any.
5.	Rate quoted should be inclusive of Testing, commissioning and Installation of equipment and Training.
6.	<p>Payment: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition, Installing, Testing, Deployment and Commissioning and receipt of performance security by supplier.</p> <p>In case of Imports, the payment will be made through LC / Sight Draft / After Installation, and performance security need to be submitted at the time of LC commitment / issue of sight draft.</p>
7.	Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this tender document.
8.	Period requirement for the supply and installation of item should be specified conforming to the section 3 of this tender document.
9.	In case of dispute, the matter will be subject to Hubli-Dharwad Jurisdiction only.

SECTION 3: SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS	
[To be filled up by the Department / IIIT Dharwad]	
Item(s) Name to be Procured / Name of the Work	Providing, Supplying, Installing, Testing, Deployment and Commissioning of CCTV at IIIT Dharwad campus
Type (Equipment/Software/Furniture/Others)	Equipment
Brief Specifications of the Item(s) : (Attach Additional Sheet if necessary)	Enclosed (Annexure -A)
Quantity	Enclosed (Annexure -A)
Any other details/requirement	-----
Warranty Period (in months)	36 Months
Delivery Schedule expected after the release of a Purchase order (in Weeks)	30 Days
EMD	5% of the estimated amount
Performance Security to be given by Successful Bidder after release of: (in Rupees)	5% of Purchase Order

SECTION 5: CONTRACT FORM

[To be provided by the bidder in the business letter head]

1. (Name of the Supplier's Firm) hereby abide to deliver the by the delivery schedule mentioned in the section 3 tender document for supply of the items if the purchase order is awarded.
2. The item will be supplied conforming to the specifications stated in the tender document without any defect and deviations.
3. Warranty will be given for the period mentioned in the tender document and service will be rendered to the satisfaction of IIIT-Dharwad during this period.

Signature of the Bidder: _____

Name and Designation: _____

Business Address

with Mob. No.

: _____

Place:

Date:

Seal of the Bidder's Firm

DECLARATION

(Shall be on the Company's Letter Head only)

I/we have not tampered/modified the tender forms in any manner. In case , if the same is found to be tampered/modified, I /we understand that my/our tender will be summarily rejected and full Earnest money deposit will be forfeited and I /we am/are liable to be banned from doing business with IIIT-Dharwad and / or prosecuted.

Signature of the Bidder: _____

Name and Designation: _____

Business Address : _____

Place :

Seal of the Bidder's Firm

Date :

Additional Instructions to Bidders:

MHRD, Govt of India had implemented e-tendering system solution through the ITI limited (a government of India enterprise) and mandated to adopt the e-wizard system and the accordingly the tender documents are published in <https://mhrd.euniwizarde.com>. The tender notification is also available in the IIIT Dharwad website (www.iiitdwd.ac.in) The bidders are required to submit soft copies of their bids electronically on using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the Ewizar Portal, prepare their bids in accordance with the requirements and submitting their bids online on the Ewizar Portal. For more information, bidders may visit the Ewizar Portal <https://mhrd.euniwizarde.com>.

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the e-tender Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the e-Procurement Portal, prepare their bids in accordance with the requirements and submitting their bids online on the e-Procurement Portal. More information useful for submitting online bids on the e-tender Portal may be obtained at: <https://mhrd.euniwizarde.com>.

Registration:

- a. Bidders are required to enroll on the e-Procurement Portal (URL: <https://mhrd.euniwizarde.com>) with clicking on the link “**Bidder enrollment**” on the e-Procurement Portal.
- b. As part of the enrolment process, the bidders will be required to choose a unique user name and assign a password for their accounts.
- c. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidder.
- d. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- e. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- f. Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.
- g. Any queries relating to the process of online bid submission or queries relating to e-Wizard Portal, in general, may be directed to the 24x7 e-Wizard Helpdesk. The contact number for the **helpdesk** is 011-49606060, 23710092, 23710091, helpdeskeuniwizarde@gmail.com Mobile: +91-8448288987/88/89,e-Mail: eprochelpdesk.01@gmail.com/eprochelpdesk.02@gmail.com

Searching for Tender Documents:

- a. There are various search options built in the e-Procurement Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Item/work id, Title, Date, etc

- b. Once the bidders have selected the tenders they are interested in, the bidder can pay the processing fees (NOT REFUNDABLE) by net-banking / Debit / Credit card and then download the required documents / tender schedules, Bid documents etc. Once tender fee is paid, it will be moved to the respective “requested” Tab. This would enable the e-tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

Preparation of Bids:

- a. Bidder should take into account any corrigendum published on the tender document before submitting their bids and no separate intimation will be provided to the vendors.
- b. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- c. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule in PDF formats. Bid Original documents may be scanned with 100 dpi with Colored option which helps in reducing size of the scanned document.
- d. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Documents” available to them to upload such documents.
- e. These documents may be directly submitted from the “My Documents” area while submitting a bid and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Submission of Bids:

- a. Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- c. Bidder has to select the payment option as “DD/e-Payment(Net Banking-Debit card-Credit card etc)/EMD-exemption” to pay the EMD as applicable and enter details as the instructions.
- d. Bidder should prepare the EMD as per the instructions specified in the tender document & submit EMD online.
- e. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the unprotected cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

- f. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- g. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- h. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i. Upon the successful and timely submission of bid click "Complete"(i.e. after Clicking "Submit" in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.
- j. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings

Technical Specification and Requirement

Annexure A

Sl No	Item Name	Quantity	Specification and Description		Complied or Equal
1	2MP PTZ 25X IR Distance 100 Mtr Range	5 (Five)	Image Sensor	½.8" STARVIS CMOS or better	
			Effective Pixels	1920(H) x 1080(V), 2 Megapixels	
			RAM/ROM	min 1024M/128M	
			Scanning System	Progressive	
			Electronic Shutter Speed	1/1s~1/30,000s or better	
			Minimum Illumination	Color: 0.005 LUX@F1.6; 0Lux@F1.6(IR on)	
			S/N Ration	More than 50dB or better	
			IR Distance	Distance upto 100 m (328 ft)	
			IR On/Off Control	Auto/Manual	
			IR LEDs	5	
			Focal Length	4.8mm~120mm	
			Max Aperture	F1.6~F4.4	
			Angle of View	H: 59.2° ~ 2.4 °	
			Optical Zoom	min 25x or better	
			Focus Control	Auto/Manual	
			Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt:- 15° ~ 90°, auto flip 180°	
			Manual Control Speed	Pan: 0.1° ~ 200° /s; Tilt 0.1° ~ 120° /s	
			Preset Speed	Pan: 240° /s; Tilt 200° /s	
			Presets	300	
			PTZ Mode	5 Pattern, 8 Tour, Auto Pan, Auto Scan	
			Speed Setup	Human-oriented focal Length/Speed adaption	
			Power up Action	Auto restore to previous PTZZ and lens status after power failure	
			Idle Motion	Activate Preset/ Sca/ Tour/ Pattern if there is no command in the specified perios	
			Intelligent features	Tripwire, Intrusion, Abandoned/Missing, Face Detection	
			Audio Interface	One or more	
			Alarm I/O	2 or more	
			Ingress Protection	IP66	
			Compression	H.265/H.264/MJPEG	
			Streaming Capability	3 streams or more	
			Resolution	min 1080P , Full HD	
			Bit Rate Control	CBR/VBR	
			Bit Rate	H.265/H.264: 448K~8192kbps, <MJPEG: 5120K~10240Kbps or better	
			Day/Night	Auto(ICR) / Colour / B/W	

			Backlight Compensation	BLC / HLC / WDR(120dB)	
			White Balance	Auto, ATW, Indoor, Outdoor, Manual	
			Gain Control	Auto / Manual	
			Noise Reduction	Ultra DNR (2D/3D)	
			Motion Detection, Regios of Interest, Defog	Supported	
			Digital Zoom	16x or better	
			Flip	180°	
			Privacy Masking	Up to 24 areas	
			Compression	G.711a/G.711u(32 kbps)/PCM(128kbps)	
			Ethernet	RJ-45(10Base-T/100Base-TX) or better	
			Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP. RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x	
			Interoperability	ONVIF, PSIA, CGI	
			Streaming Method	Unicast/Multicast	
			Camera Internal Storage	Micro SD Card 128 GB	
			Certifications	CE: EN55032/EN55024/EN20130-4	
				FCC: Part15 subpartB, ANSI C63.4-2014	
				UL: UL60950-1+CAN/CSA C22.2, No. 60950-1	
2	2 MP Bullet Camera	80 (Eighty)	Image Sensor	1/2.7" or 1/3" 2Megapixel progressive CMOS or better	
			Effective Pixels	1920(H) x1080(V) or better	
			RAM/ROM	256MB/32MB min	
			Scanning System	Progressive	
			Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s or better	
			Minimum Illumination	min 0.08Lux/F2.0(Color,1/3s,30IRE)	
				min 0.3Lux/F2.0(Color,1/30s,30IRE)	
				0Lux/F2.0(IR on)	
			S/N Ratio	More than 50dB	
			IR Distance	min Distance up to 30m(98ft)	
			IR On/Off Control	Auto/ Manual	
			IR LEDs	min 18 or better	
			Lens Type	Fixed	
			Focal Length	3 mm or better	
			Max. Aperture	F2.0/F2.0	

			Angle of View	H:104°/92°,V:55°/50°	
			Focus Control	Fixed	
			Compression	H.264 or better	
			Streaming Capability	Multi Streams	
			Bit Rate Control	CBR/VBR	
			Resolution	1080P , Full HD	
			Bit Rate	H.265: 12K ~ 6400Kbps	
				H.264: 32K ~ 10240Kbps	
			Day/Night	Auto(ICR) / Color / B/W	
			Backlight Compensation	BLC / HLC / DWDR	
			White Balance	Auto/Natural/Street Lamp/Outdoor/Manual	
			Gain Control	Auto/Manual	
			Noise Reduction	3D DNR	
			Motion Detection	Off / On (4 Zone, Rectangle)	
			Regions of Interest	S Off / On (4 Zone)	
			Electronic Image, Smart IR	Support	
			Digital Zoom	16x	
			Flip	0°/90°/180°/270°	
			Mirror	Off / On	
			Privacy Masking	Off / On (4 Area, Rectangle)	
			Ethernet	RJ-45 (10/100Base-T)	
			Protocol	HTTP;HTTPS;TCP;ARP;RTSP;RTP;RTCP;UDP;SMTP;	
				FTP;DHCP;DNS;DDNS;PPPoE;IPv4/v6;QoS;UPnP;	
				NTP;Bonjour;IEEE 802.1x;Multicast;IGMP;IGMP;	
				TLS	
			Interoperability	ONVIF Profile S&G, API	
			Streaming Method	Unicast / Multicast	
			User Access at any give time	10 Users / 20 Users	
			Edge Storage	NAS	
				Local PC for instant recording	
			Certifications	CE (EN 60950:2000)	
				UL:UL60950-1	
				FCC: FCC Part 15 Subpart B	
			Ingress Protection	IP66 or better	
3	2 MP Dome Camera	20	Image Sensor	1/2.7" or 1/3" 2 Megapixel progressive CMOS	
			Effective Pixels	1920 (H) × 1080 (V) or better	
			ROM	min 16 MB	

RAM	min 64 MB	
Scanning System	Progressive	
Electronic Shutter Speed	Auto/Manual 1/3 s–1/100000 s	
Min. Illumination	0.01 Lux @F2.0	
IR Distance	min 30 m (98.4 ft)	
IR On/Off Control	Auto/Manual	
IR LEDs Number	3	
Lens Type	Fixed-focal	
Focal Length	3 mm or better	
Max. Aperture	F2.0/F2.0	
Field of View	2.8 mm: Horizontal: 105° Vertical: 57° Diagonal: 125° 3.6 mm: Horizontal: 87° Vertical: 47° Diagonal: 104°	
Iris Type	Fixed aperture	
Close Focus Distance	2.8 mm: 0.5 m (1.6 ft)	
	3.6 mm: 0.9 m (3.0 ft)	
Video Compression	H.265; H.264; H.264H; H.264B; MJPEG	
Smart Codec	Yes	
Video Frame Rate	Main Stream:	
	1920 × 1080 (1 fps–25/30 fps) min	
Stream Capability	2 streams	
Resolution	1080p (1920 × 1080) , full HD 2 MP	
Bit Rate Control	CBR/VBR	
Video Bit Rate	H.264: 32 Kbps–6144 or better	
	H.265: 12 Kbps–6400 Kbps or better	
Day/Night	Auto(ICR)/Color/B/W	
BLC	Yes	
HLC	Yes	
WDR	DWDR	
White Balance	Auto/natural/street lamp/outdoor/manual/regional custom	
Gain Control	Auto/Manual	
Noise Reduction	3D DNR	
Motion Detection	OFF/ON (4 areas, rectangular)	
Region of Interest(Roi)	Yes (4 areas)	
Smart IR	Yes	

			Mirror	Yes	
			Privacy Masking	4 areas	
			Network	RJ-45 (10/100 Base-T)	
			Protocol	IPv4; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; SMTP; FTP; DHCP; DNS; NTP; Multicast	
			Ingress Protection	IP66 or better	
			Interoperability	ONVIF (Profile S); CGI; P2P; Genetec	
			Certifications	CE-LVD: EN60950-1	
				CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU	
				FCC: 47 CFR FCC Part 15, Subpart B	
4	24 Port PoE Switch with 2 SFP port 240W	15	Ethernet Port	16*10/100/1000 Base-T (PoE power supply)	
				2*100/1000 Base-X or more	
			RS232 Serial Console	1*RS232 in RJ45 connector with console cable	
			PoE	Total of 190 Watts, Should support Hi-PoE 60W	
			PoE Protocol	IEEE802.3at, Hi-PoE	
			Switching Capacity	min of 50 Gbps	
			Packet Forwarding Rate	23.81Mpps or better	
			Packet Buffer Memory	4Mb Large data cache	
			Lightning Protection	min 2KV	
			MAC Table	8K	
			NTP	Support	
			DHCP	Support DHCP client/server and Snooping	
			VLAN	802.1Q Standard VLAN	
			Port Aggregation	Manual aggregation/LACP	
			Mirroring	Many-to-one port mirroring	
			Flow Control	Half-duplex based on back pressure type control;	
				Full duplex based on PAUSE frame	
			Multicast	IGMP Snooping v1/v2/v3	
			Security Features	Users management, SSH, HTTPS, SNMP v1/v2/	
				v3, ROMN, ACL, IP source guard, ARP inspection,	
				802.1x, loop protection	
			Spanning tree	Support STP/RSTP/MSTP	
			LLDP	Support	

5	Smart Surveillance Management Centre	1	MAC Table	Support MAC address table configuration	
				Support QoS base on CoS/DPL/PCP/DEI	
				Each port support 8 output queue	
			QoS	Support port shaping	
				Support port tag remarking	
				Support QoS base on DSCP	
				Support the configuration file upload/download	
			System Maintenance	Support the updated packet upload	
				System log	
			Network Management	WEB(http protocol), serial, SNMP	
			System		
			Main Processor	Intel Core i5 4 core 64-bit Processor or better	
			Operating System	Preferred Embedded Linux	
5	Smart Surveillance Management Centre	1	Motherboard	Server Embedded Board	
			Memory	8GB DDR3 minimum	
			Case	Hot-dipped galvanized sheet steel (1.2mm thickened), High-precise aluminium alloy slide, Patented pull-out rack design.	
			Local System Setting	System time setting, Platform service operation parameters configuration	
			Display Port		
			LCD	Display system information and status. Include: system time, the system hardware information, platform service running state, etc	
			Data Management		
			Hard Disk slot	Minimum of 16 disks local storage	
			Raid mode	Single, Raid0, Raid1, Raid5, Raid 6	
			Ethernet Port		
			Ethernet Port	4 1000Mbps Ethernet port	
			Features	Four Ethernet ports bound load balancing or independent Ethernet port interfaces	
			Data Interface		
			USB	4 USB2.0 port or better	
			Serial Ports	1 RS232 COM	
			Software Features		
			Support GIS map	Google, Raster Map	

		Support ONVIF	Yes, GB/T28181 standard protocol gateway connection	
		Support tier and cascade deployment	Yes	
		SDK	Available	
		Input Devices	500	
		Channel Alarm per Second	1000	
		VMS should display		
			CPU Usage, Real time net status, quickly enter alarm interface, Prompt alarm device, when system error, user error occurs	
			VMS Should support All PTZ feature	
			VMS should support triple snap shot / Single snap shot	
			VMS Should have a provision of setting Manual Record &	
			Add / Edit of Recording & Snap shot path	
			VMS shall support Different Alarm scheme (All day /	
			Different time period)	
			When Alarm occurs	
			1) it should flash on Map	
			2) Audio warning	
			3) Link video	
			Playback :-	
			1) Support synchronous play back & 36 Channels at a time	
			2) Book mark	
			3) While playback - Mark current record, Snapshot &	
			Download	
			4) Download should support based on Files & Time	
			VMS should support Edge base analytics trigger	
			5) Support Different colour scheme for Alarm recording & easy search	
			Support Bi directional talk	
		Others		
		HDD Hibernation	Main thoroughfare through the backplane	
		Fault Alarm	Support for E-mail, beep, SDK, etc. For fault alarm	

			Power Supply	100V~240V,47~63Hz, Hot-swappable	
			Power	10W~200W(With HDD)	
6	WD 8TB AV Hard Drive	5	WD 8TB AV Hard Drive	WD 8TB AV Hard Drive	
7	Installation of camera	105	Installation of camera	Installation of camera	
8	Configuration of SSMC and commissioning.		Configuration of SSMC and commissioning.	Configuration of SSMC and commissioning.	
9	Project Management, Consulting and Training.		Project Management, Consulting and Training.	Project Management, Consulting and Training.	
