



INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI - 110016

Open Tender No. IITD/WORKS(SP-2326)/2019

Old tender reference no. IITD/WORKS(SP-2254)/2019 and Tender Id: 2019_IIT_455699_1

NAME OF WORK	:	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.
ESTIMATED COST	:	Rs. 4,82,42,104/- (Inclusive GST)
EMD*	:	Rs. 9,64,842/-
N.I.T. No.	:	9471/18/EW/IITD/2019-20
Warrantee	:	Comprehensive 03 years warrantee (01 year inherent + 02 years extended) from date of successful installation, testing and commissioning of the of the system.
AMC	:	Comprehensive 07 years optional Annual Maintenance contract after completion of three years comprehensive warrantee.
Date of Opening	:	13/06/2019
* Note	:	Bidders who have already submitted EMD against NIT No: 9471/79/EW/IITD/2018-19 need not require to submit EMD again.

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O..... Nil

D'Man /J.E.

A.E.E , SS

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Name of Work: Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.

NIT for the above work has been prepared with the following:

1	Amount of NIT	:	Rs. 4,82,42,104/- (Inclusive GST)
2	Earnest money	:	Rs. 9,64,842/-
3	Performance guarantee	:	5% of the tendered cost
3	Completion time	:	06 months
4	Last date of submission (online)	:	11-06-2019 up to 03:00 PM
5	Date of opening	:	13-06-2019 at 03:00 PM
6	Form of NIT	:	IITD - 8
7	Schedule applicable	:	DSR/Market Rate
8	Material stipulated	:	As per Schedule of Work
9	Chargeable head	:	PLN-02
10	Estimate no.	:	IITD/DB/IE/9471
11	Work code no.	:	WO 3243
12	NIT No.	:	9471/18/EW/IITD/2019-20
13	Type of work	:	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.

Certified that this NIT contains **1 to 79** pages.

NIT amounting to **Rs. 4,82,42,104/-** is approved.

D/Man [Plg.]

JE(T)

AEE[T],SS

Executive Engineer [Electrical]

Institute Engineer

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

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INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI – 110016
NOTICE INVITING E-TENDER
IITD/WORKS(SP-2326)/2019

Executive Engineer (Electrical), Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 100016 [Phone No. 011-26591742] on behalf of Board of Governors invites online **Item Rate Tender** from Specialized Firms/ Contractors of repute for the following work:

1	Name of Work	:	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.
2	NIT No.	:	9471/18/EW/IITD/2019-20
3	Estimated cost	:	Rs. 4,82,42,104/-(Inclusive GST)
4	Earnest Money	:	Rs. 9,64,842/-
5	Period of completion	:	06 months
6	Last date & time of bid submission	:	11.06.2019 up to 03:00PM
7	Performance Bank Guarantee	:	5% of the tendered amount

The bid forms and other details may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidder who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidder are advised to go through instructions provided at ‘Instructions for online Bid Submission ‘.

Bidder can access Quotation / tender documents on the website (For searching in the NIC site, kindly go to Quotation Search option and type ‘IIT’. Thereafter, Click on “GO” button to view all IIT Delhi Quotations). Select the appropriate Quotation / tender and fill them with all relevant information and submit the completed Quotation / tender document online on the website <http://eprocure.gov.in/eprocure/app> as per the schedule given in the next page.

Executive Engineer [Electrical],
For & on Behalf of BOG, IIT Delhi

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

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Ch. Head: PLN - 02
Work code- WO3243

Copy to: -

1. Institute Engineer
2. D.A. (Works Accounts) - for opening of tenders in the office of D.R. [SPS]
3. A.E.E. (E) Plg.
4. AEE(T)SS
5. JE(T)
6. D.R. (A/Cs)
7. D.R. [SPS]
8. Notice Boards.
9. Office Copy
10. Web site Administrator, IITD
11. Security Officer

C.....Nil

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D'Man /J.E.

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SCHEDULE

1	Name of Organisation	:	Indian Institute of Technology Delhi
2	Tender / Quotation Type [open / limited / EOI / auction / single]	:	Open
3	Tender / Quotation Category [services / goods / works]	:	Goods/Works
4	Type / Form of Contract [work / supply / auction / service / buy / empanelment / sell]	:	Work& Supply
5	Product Category [civil works / electrical works / fleet management / computer systems]	:	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi
6	Is Multi Currency Allowed?	:	No
7	Date of issue / publishing /start	:	14-05-2019 at (15:00 Hrs)
8	Document download start date	:	14-05-2019 at (15:00 Hrs)
9	Document download end date	:	11-06-2019 at (15:00 Hrs)
10	Date & venue of pre bid meeting	:	N.A (Pre bid meeting already held on 02-04-2019 and queries replied for this work (Reference NIT No. 9471/79/EW/IITD/ 2018-19). Please see attachment - Annexure- R
11	Last date & time of uploading of bids	:	11-06-2019 at (15:00 Hrs)
12	Date & time of opening of Technical Bids	:	13-06-2019 at (15:00 Hrs)
13	EMD	:	Rs. 9,64,842/- [For EMD] (To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : IITD Revenue Account SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-I)
14	No. of covers [1/2/3/4]	:	02
15	Address for communication	:	Executive Engineer (Electrical), Works Organization, Hauz Khas, IIT Delhi, New Delhi - 110016
16	EMD Exemption	:	May be granted to NSIC / MSME registered firms who are registered for this particular type of work. However, document must be enclosed with Technical bid.

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INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this Quotation / tender document has been published on the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)). The bidder are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidder in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

<http://eprocure.gov.in/eprocure/app>

REGISTRATION

- 1) Bidder are required to enroll on the e-Procurement module of the Central Public Procurement Portal ([URL:http://eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app)) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidder will be required to choose a unique username and assign a password for their accounts.
- 3) Bidder are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidder will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidder are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their userID / password and the password of the DSC / e-Token.

SEARCHING FOR QUOTATION /TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidder to search active Quotations / Tender by several parameters. These parameters could include Quotation ID, organization name, location, date, value, etc. There is also an option of advanced search for Quotations, wherein the bidder may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a Quotation published on the CPP Portal.
- 2) Once the bidder have selected the Quotations they are interested in, they may download the required documents / Quotation schedules. These Quotations can be moved to the respective 'My Quotations' folder. This would enable the CPP Portal to intimate the bidder through SMS / e-mail in case there is any corrigendum issued to the Quotation document.
- 3) The bidder should make a note of the unique Quotation ID assigned to each Quotation / Tender, in case they want to obtain any clarification / help from the Helpdesk.

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PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the Quotation document before submitting their bids.
- 2) Please go through the Quotation / Tender advertisement and the Quotation / 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.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the Quotation document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4) 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 bidder. Bidder can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" 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

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the Quotation document.
- 3) A standard BoQ format has been provided with the Quotation document to be filled by all the bidder. Bidder are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidder are required to download the BoQ file, open it and complete the white colored (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.

OR

In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).

- 4) The server time (which is displayed on the bidder' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidder, opening of bids etc. The bidder should follow this time during bid submission.
- 5) All the documents being submitted by the bidder 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. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 6) The uploaded Quotation documents become readable only after the Quotation opening by the authorized bid openers.
- 7) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 8) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

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ASSISTANCE TO BIDDER

- 1) Any queries relating to the Quotation document and the terms and conditions contained therein should be addressed to the Quotation Inviting Authority for a Quotation or the relevant contact person indicated in the Quotation.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

GENERAL INSTRUCTIONS TO THE BIDDER

- 1) The Quotations will be received online through portal <http://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidder are required to upload all the documents in .pdf format.
- 2) Possession of a Valid Class- III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".

Bidder are advised to follow the instructions provided in the 'Instructions to the Bidder' for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>.



INFORMATION AND INSTRUCTIONS TO BIDDER FOR E-TENDERING

Executive Engineer Electrical, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 100016 [Phone No. 011-26591762] on behalf of Board of Governors invites online **Item Rate Tender** from Specialized Firms/ Contractors of repute for the following work:

Sl. No.	N.I.T. No.	Name of work & Location	Estimated cost put to bid(inclusive GST)	Earnest Money	Period of completion	Last date & time of submission of bid (online mode)	Time & date of opening of Technical Bid	Time & date of opening of financial bid
[1]	[2]	[3]	[4]	[5]	[7]	[8]	[9]	[10]
1	9471/18/EW/IITD/2019-20	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.	4,82,42,104/-	9,64,842/-	06 months	11-06-2019 up to 3.00 PM-	13-06-2019 at 3.00 PM	To be Intimated after assessing Technical bid.

1. Performance Bank Guarantee

The successful bidder shall submit an irrevocable performance guarantee of 5% of the tendered amount in addition to other deposit mentioned elsewhere in the contract for his proper performance of the contract agreement within 15 days of issue of letter of acceptance of tender. This guarantee shall be in the form of Demand Draft/Pay order of irrevocable bank guarantee bond of any schedule bank or the State Bank of India in the specified perform a of Government Security, fixed deposit receipt pledged in favor of Executive Engineer or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to the stipulated date of completion (SITC works) plus 60 days beyond. This bank guarantee shall be further

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renewed and kept valid till the recording of completion certificate for the SITC work and thereafter during warranty period and CAMC period on annual renewal basis by the competent authority.

2. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
 - i] Firms/Contractors should have satisfactorily completed one similar work of value not less than **Rs. 3,85,93,683/-** or two similar works each of value not less than **Rs. 2,89,45,262/-** or three similar works each of value not less than **Rs. 1,92,96,841/-** during last 7 years ending previous day of last date of submission of bids.
 - II) Firm with authorized letters from the OEM will be qualified for the commercial bids opening. Only OEM or their authorized dealers can quote the tender being a specialized job .
 - III) **Earnest Money of Rs.9,64,842/-** to be deposited on-line as indicated in Schedule.

3 Similar work means: Supply, Installation, testing and commissioning of CCTV works.

4. The intending bidder must read the terms and conditions [both commercial & Additional], technical specification compliance sheet (Annexure---A), Commercial compliance sheet (Annexure- B) & IITD - 6 carefully which will be the part of the Contract. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

5. Information and Instructions for bidder posted on website shall form part of bid document.

6. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website e-procure.gov.in.

7. But the bid can only be submitted after depositing requisite tender fee and EMD as specified in the schedule.

8. Copy of enlistment order and certificate of work experience and other documents as specified in the Press Notice / web notice shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents as specified in press notice web / notice shall have to be submitted by the lowest bidder only within a week physically in the office of e-tendering authority.

9. Online bid documents submitted by intending bidder shall be opened only of those bidder, who has deposited requisite EMD and other documents scanned and uploaded are found in order.

10. Completion certificates are required to be got issued by an officer not below the rank of Executive Engineer of similar works completed by the Firm. The work experience certificates submitted by the bidder shall clearly indicate that:

- a. The similar work executed shall be as **'3' above**
- b. The completed cost of the work.
- c. Actual date of completion of the work

11. Attested copy of registration certificates to be submitted. Registration of firms/ Contractors must be valid on the day of submission of Tenders or extended date of submission of Tenders whichever is later.

12. Work means only work under Government/ Public Sector Undertaking / Central Autonomous bodies.

13. The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of financial bid.

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14. IITD is committed to follow the principle of transparency, equity and competitiveness in public procurement. Before submission of bid, **each bidder should sign integrity pact at respective places** and submit the bid. If duly signed integrity pact is not submitted by bidder, such bid shall not be considered.

15. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.

16. When bids are invited in two / three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.

17. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

18. The bid submitted shall become invalid if:

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents (including GST registration and EPF &ESI registration), work experience as desired as stipulated in the bid document including the undertaking/ declaration.
- c. EMD not deposited through RTGS/NEFT as specified.
- d. OEM authorization letter duly ink signed (MAF directly from OEM) is not submitted for SITC of the equipment along with 3 years of comprehensive warranty and 7 years CAMC support.
- e. Technical Specifications Compliance sheet duly ink signed and vetted by OEM as per Annexure - A is not submitted.
- f. Commercial compliance sheet as per Annexure - B with supporting documents is not submitted.
- g. Seamless connectivity compliance with existing CCTV systems of IITDelhi duly ink signed and vetted by OEM is not submitted .

19. The firm shall be registered with EPFO & ESIC.



List of Documents to be scanned and uploaded within the period of bid submission:

1. Annexure 1 [duly filled in preferably typed] and got signed
2. Attested certificate of work experience as desired.
3. Certificate of Registration for GSTIN.
4. Affidavit as per Notice Inviting Tender Condition 1.2.2. (To be submitted on stamp paper)
5. Acceptance to execute INTEGRITY PACT [see integrity pact]
6. EPF & ESI Registration proof.
7. IITD 7 / 8 duly signed. [at page-23]
8. MSME / NSIC Registration [If the bidder claims for EMD exemption]
9. OEM authorization letter duly ink signed (MAF directly from OEM) should be submitted for SITC of the equipment along with 3 years of comprehensive warrantee and 7 years CAMC support.
10. Technical Specifications Compliance sheet as per Annexure -A should be duly ink signed and vetted by OEM.
11. Commercial compliance sheet as per Annexure - B along with all supporting documents.
12. Seamless connectivity compliance with existing CCTV systems of IIT Delhi should be duly ink signed and vetted by OEM .
13. Any other document as specified in the NIT.

**Executive Engineer [Electrical]
For & on Behalf of BOG, IIT Delhi**

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

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INDIAN INSTITUTE OF TECHNOLOGY DELHI NOTICE INVITING E-TENDER

Executive Engineer Electrical, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 100016 [Phone No. 011-26591762] on behalf of Board of Governors invites online **Item Rate Tender** from Specialized Firms/ Contractors of repute for the following work:

- 1.1 The work is estimated to cost **Rs.4,82,42,104/- (Inclusive GST)**-This estimate, however, is given merely as a rough guide.
 - 1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

For composite bid, besides indicating the combined estimated cost put to tender, should clearly indicate the estimated cost of each component separately. The eligibility of bidder will correspond to the combined estimated cost of different components put to bid.
- 1.2 Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of bid documents.

1.2.1 Criteria of eligibility for CPWD as well as non-CPWD contractors for specialize work.

The firms/Contractors should have satisfactorily completed one similar work of value not less than **Rs, 3,85,93,683**/or two similar works each of value not less than **Rs. 2,89,45,262/** or three similar works each of value not less than **Rs. 1,92,96,841/-** during last 7 years ending previous day of last date of submission of bids.

1.2.2 To become eligible for issue of bid, the bidder shall have to furnish an affidavit as under :-

“I / We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for bidding in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy to be uploaded at the time of submission of bid)”

2. **Agreement shall be drawn with the successful bidder on prescribed Form No. IITD 7/8 which is available as IIT Delhi Publication. Bidder shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.**
3. The time allowed for carrying out the work will be **06 months** from the date of start as defined in schedule ‘F’ or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.

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5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from the web Site **e-procure.gov.in**.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
8. If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.
9. Earnest Money as specified to be paid through RTGS / NEFT.
IIT Delhi Bank details are as under:
Name of the Bank A/C : IITD Revenue Account
SBI A/C No. : 10773572622
Name of the Bank : State Bank of India, IIT Delhi,
Hauz Khas, New Delhi-110016
IFSC Code : SBIN0001077
MICR Code : 110002156
Swift No. : SBININBB547

(This is mandatory that UTR Number is provided in the on-line quotation/bid. Kindly refer to the UTR Column of the Declaration Sheet at Annexure-I)

Interested contractors who wish to participate in the bid has also to make following payments within the period of bid submission:

- (i) Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission.
10. The bid submitted shall become invalid, if:
 - a) The bidder is found ineligible.
 - b) The bidder does not upload all the documents (including GSTIN/Technical bid) as stipulated in the bid document.
 - c) EMD not deposited as specified.
 - d) OEM authorization letter (MAF directly from OEM) specific to this Tender for SITC of the equipment along with 3 years of comprehensive warrantee and 7 years CAMC support.
 - e) Technical Specifications Compliance sheet as per Annexure –A duly signed and vetted by OEM is not submitted.
 - f) Commercial compliance sheet as per Annexure - B with supporting documents is not submitted.
 - g) Seamless connectivity compliance with existing CCTV system of IIT Delhi duly signed and vetted by OEM is not submitted.
11. The contractor whose bid is accepted will be required to furnish **performance bank guarantee of 5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker' cheque of any scheduled bank/ Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or irrevocable Bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
12. Intending Bidder are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and subsoil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra

C.....Nil

I..... Nil

O..... Nil



- charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. 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 work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.
13. The competent authority on behalf of the Board of Governors does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
 14. Canvassing whether directly or indirectly, in connection with bidder is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
 15. The competent authority on behalf of the Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
 16. The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted officer in the IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.
 17. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract liable to be cancelled, if, either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
 18. The bid for the works shall remain open for acceptance for a period of **ninety [90] days from the date of opening of financial bids**, if any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the re-bidding process of the work.
 19. This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority shall **within 15 days** from the stipulated date of start of the work, sign the contract consisting of:-
 - a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard IITD Form –7/8 or other Standard IITD Form as applicable.
 20. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as to be submitted physically in IIT Delhi, if so desired by the accepting authority, then the bid submitted shall become invalid and the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the bidding process of the work.

C.....Nil

I..... Nil

O..... Nil



INTEGRITY PACT

To

.....,
.....,
.....

Sub: NIT No. 9471/18/EW/IITD/2019-20 for the work of Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.

Dear Sir,

It is here by declared that IITD is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the Integrity Agreement, which is an integral part of the tender/bid documents, failing which the tender/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the IITD.

**Yours faithfully
Executive
Engineer(Electrical)**

[TO BE SUBMITTED DULY
SIGNED BY THE BIDDER
ALONGWITH BID
DOCUMENTS]

C.....Nil I..... Nil O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



To

**Executive Engineer (Elect.),
IIT Delhi, Hauz Khas,
New Delhi – 110016**

Subject: Submission of Bid for the work of Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.

Dear Sir,

I / We acknowledge that IITD. is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I / We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I / We will sign the enclosed integrity Agreement, which is an integral part of tender / bid documents, failing which I / We will stand disqualified from the tendering process. I / We acknowledge that **THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE** of this condition of the NIT.

I / We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by IITD. I / We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I / We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, IITD shall have unqualified, absolute and unfettered right to disqualify the bidder /bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully,

(Duly authorized signatory of the Bidder)

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



[To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IITD]

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of..... 20.....

BETWEEN

The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 represented through **Executive Engineer (Civil &Elect.)**, IIT Delhi

....., (Hereinafter referred as the 'Principal/Owner',

(Address of Division)

'Principal/Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....

(Name and Address of the Individual/firm/Company)

through (Hereinafter referred

(Details of duly authorized signatory)

to as the "Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No. **9471/18/EW/IITD/2019-20**) (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for **Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.**

(Name of work) hereinafter referred to as the "**Contract**".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "**Integrity Pact**" or "**Pact**"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal / Owner

C.....Nil I..... Nil O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
No employee of the Principal / Owner, personally or through any of his / her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (a) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (b) The Principal/Owner shall Endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PoC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.
- 3) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PoC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s) / Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or coercion or collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s) / Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal / Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s) / Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly Bidder(s) / Contractor(s) of Indian Nationality shall disclose names

C.....Nil

I..... Nil

O..... Nil



and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practices **means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.**
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal /Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. **Such exclusion may be forever or for a limited period as decided by the Principal/Owner.**
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal / Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action

C.....Nil

I..... Nil

O..... Nil



can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidder/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidder and Contractors.
- 3) The Principal/Owner will disqualify Bidder, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 6 months after the completion of SITC work under the contractor till the continuation of defect liability period (Total Ten years), whichever is more and for all other bidder, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority of IITD.

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head Quarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by Board Resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal / Owner)

C.....Nil I..... Nil O..... Nil



.....
(For and on behalf of Bidder / Contractor)

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

C.....Nil I..... Nil O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



INDIAN INSTITUTE OF TECHNOLOGY DELHI HAUZ KHAS, NEW DELHI - 110016

Percentage Rate Tender / Item Rate Tender & Contract for Works

Tender for the work of Supply, Installation, Testing& Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.

(I) To be submitted online by **11.06.2019 upto 03:00 PM.**

(II) To be opened on **13.06.2019 at 03:00 PM** online,

e-TENDER

I / We have read and examined the Notice Inviting Tender, schedule, A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I / We hereby tender for the execution of the work specified for the Board of Governors, IIT Delhi within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for ninety (90) days from the due date of its opening / ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system (**strike out as the case may be**) and not to make any modification in its terms and conditions.

A sum of **Rs. 9,64,842/-** is hereby deposited in IIT Delhi Revenue Account No. 10773572622 as earnest money. If I / We, fail to furnish the prescribed performance guarantee within prescribed period I / We agree that the said The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / We fail to commence the work as specified, I / We agree that The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I / We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid I / We shall be debarred for participation in the re-tendering process of the work.

I / We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for tendering in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I / We hereby declare that I / We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I / We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



Dated:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 110016 for a sum of (Rupees.....).

The letters referred to below shall form part of this contract agreement:-

- (a)
- (b)
- (c)

For & on behalf of Board of Governors, IIT Delhi

Signature

Dated:

Designation

C.....Nil I..... Nil O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).

**PROFORMA OF SCHEDULES**

[Operative Schedules to be supplied separately to each intending bidder]

SCHEDULE 'A'

Schedule of quantities (enclosed)

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
	← Nil →			

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description	Hire charges per day	Place of Issue
	← Nil →		

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.

SCHEDULE 'E'

Reference to General Conditions of contract [GCC]

1	Name of work	:	Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.
2	Estimated cost of work	:	Rs .4,82,,42,104/
3	Earnest Money	:	Rs. 9,64,842/-
4	Performance Guarantee	:	5 percent of tendered value

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



5	Security Deposit	:	5 percent of tendered value
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SCHEDULE 'F'**GENERAL RULES & DIRECTIONS**

: Officer inviting tender

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	:	See below
Definitions:		
2[v] Engineer – in – charge	:	Executive Engineer (Electrical)
2[vi] Accepting Authority	:	Institute Engineer
2[x] Percentage on cost of materials and labour to Cover all overheads and profits	:	15 percent
2[xi] Standard schedule of rates	:	Market Rate
2[xii] Department	:	E & W, IIT Delhi
9[ii] Standard IITD Contract Form	:	General Conditions of Contract 2010, IITD Form 7/8-2010 modified & Corrected up to date of submission of tender

Clause 1:		
[i] Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	15 days
[ii] Maximum allowable extension with late fees @ 0.1% per day of performance guarantee amount beyond the period provided in (i) above	:	1 to 15 days
Clause 2:		
Authority for fixing compensation under clause 2	:	Institute Engineer
Clause 2 A:		
Whether Clause 2A shall be applicable	:	No
Clause 5:		
Number of days from the date of issue of letter of award for reckoning date of start	:	10 [ten] days

Milestone(s) as per table given below:-

Sl. No.	Description of Milestone (Financial)	Time allowed in days (from date of start)	Amount to be with-held in case of non-achievement of mile stone
N O T A P P L I C A B L E			

Time allowed for execution of work	:	06 months
Authority to decide:	:	
Extension of time	:	Institute Engineer
Rescheduling of mile stones	:	Institute Engineer
Clause Applicable 6 or 6A:	:	Clause 6A
Clause 7:		
Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such	:	Not Applicable

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



payment for being eligible to interim payment		
Clause 10 A:		
List of testing equipment to be provided by the contractor at site lab	:	As desired by the Engineer-in-charge relating to the work
Clause 10B(ii):		
Whether Clause 10 B (ii) shall be applicable	:	No
Clause 10C:		
Component of labour expressed as percent of value of work	:	15 percent

Clause 10CA:

S.No.	Material covered under this clause	Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed	Base Price of all Materials covered under clause 10 CA*
1			Nil
2			
3			
4			

* Base price of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT.

Clause 10CC

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	:	18 months
Schedule of component of other Materials, Labour, POL etc. for price escalation		
Component of civil (except materials covered under clause 10CA)/ Electrical construction Materials expressed as percent of total value of work	:	X _m : 75 percent
Component of Labour expressed as percent of total value of work	:	Y : 25 percent
Component of P.O.L. expressed as percent of total value of work	:	Not Applicable

Clause 11

Specifications to be followed for execution of work	:	CPWD General specification for Electrical work Part I (INTERNAL) Part-II (EXTERNAL) and HVAC with up to date correction.
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Clause 12

Type of work	:	Maintenance works including works of up-gradation, aesthetic, special repair, addition/ alteration
Clause 12.2. & 12.3		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	:	30 percent
Clause 12.5		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	:	100 percent

Clause 16

Competent Authority for deciding reduced rates	:	Institute Engineer
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C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).

**Clause 18**

List of mandatory machinery, tools & plants to be deployed by the contractor at site:

1.....	2.....	3.....
4.....	5.....	6.....
7.....	8.....	9.....

Nil

Clause 36 (i)

Requirement of Technical Representative(s) and recovery Rate

Sr. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience (Years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36 (1)	
						Figures	Words
1	Graduate Engineer	Electrical	P.T.R	2	1	15000/-	Fifteen Thousand
2	Graduate or Diploma Engineer	Electrical or Electronics	T.R	2 for Graduate & 5 for Diploma	1	15000/-	Fifteen Thousand

Assistant Engineers retired from Government services that are holding diploma will be treated at par with Graduate Engineers

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COMMERCIAL AND ADDITIONAL CONDITIONS

1.0 General

1.1 This specification covers manufacturing, testing as may be necessary before dispatch, delivery at site, all preparatory work assembly and Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi and putting into operation

1.2 Location: All across IIT Delhi campus.

The work shall be executed as per CPWD General Specifications for Electrical Works Part-I (Int.) 2013, Part-II (Ext.) 1994, Part-IV (Sub St.) 2013, Part-VI (FAS)-2018, as amended up to date, relevant E.I Rules, BIS/IEC and as per directions of Engineer-in-Charge. These additional specifications/conditions are to be read in conjunction with above and in case of variations; specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these additional specification and conditions, as the same are to be read along with schedule of quantities for the work.

1.3 The bidder should in his own interest visit the site and get familiarize with the site conditions before tendering.

1.4 No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

2.0 Commercial Conditions:

2.1 Type of contract: The work to be awarded by this tender shall be treated as indivisible works contract.

2.2 Submission and opening of Tenders:

The tender is in two parts:

(a) Part-I - Technical cum Un-priced commercial Bid

(b) Part-II-Price Bid

2.2.1 The tender shall be submitted online, duly completed as per NIT conditions within period of bid submission:

2.2.2 The bidder are advised not to deviate from the technical specifications / item , commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.

2.2.3 Technical cum un-priced commercial bid only shall be opened on the due date and time in the presence of bidder or their authorized representative who wish to remain present.

2.2.4 Scrutiny/evaluation of the technical-cum-commercial bid shall be done by the department. In case, it is found that the technical-cum-commercial bid of a bidder is not in line with NIT specifications/requirements and/or contains too many deviations, the department reserves the right to reject the technical bid of such firms(s) without making any reference to the bidder(s).

2.2.5 Necessary clarifications required by the department shall have to be furnished by the bidder within the time given by the department for the same. The bidder will have to depute his representative to discuss with the officer(s) of the department as and when so desired. In case, in the opinion of the department a

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bidder is taking undue long time in furnishing the desired clarifications, his bid will be rejected without making any reference.

- 2.2.6 After obtaining clarification from all the tenders, the department will intimate the bidder whose technical cum commercial bids are acceptable.
- 2.2.7 The price bids of only those bidder shall be opened whose technical bids are found to be technically acceptable. The time and date of opening of price bid shall be fixed after the technical cum un priced commercial bid is accepted and intimated to them by post/Fax/e-mail.
- 2.2.8 The department reserves the right to reject any or all the price bids and call for fresh prices/tenders as the case may be without assigning any reason.

3.0 Terms of Payments

The following percentage of contract rates for the various items included in the contract shall be payable against the stage of work shown herein.

- 3.1 60% after initial inspection and delivery at site in good condition on pro-rata basis.
- 3.2 30% after completion of installation in all respects.
- 3.3 Balance 10% will be paid after testing, commissioning and handing over to the department for beneficial use.

3.4 Security Deposit

Security Deposit shall be deducted from each running bill and final bill to the extent of 5 % of the gross amount payable. The security deposit shall be released after 6 months of successful instantiation, commissioning and testing of the system.

3.5 Performance Bank Guarantee

The successful bidder shall submit an irrevocable performance guarantee of 5% of the tendered amount in addition to other deposit mentioned elsewhere in the contract for his proper performance of the contract agreement within 15 days of issue of letter of acceptance of tender. This guarantee shall be in the form of Demand Draft/Pay order of irrevocable bank guarantee bond of any schedule bank or the State Bank of India in the specified perform a of Government Security, fixed deposit receipt pledged in favour of Executive Engineer or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to the stipulated date of completion (SITC works) plus 60 days beyond. This bank guarantee shall be further renewed and kept valid till the recording of completion certificate for the SITC work and thereafter during warrantee period and CAMC period on annual renewal basis by the competent authority.

- 3.6 Income tax, GST, Labour Cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deduction of Security Deposit, Income Tax, etc., shall be done after calculation for the above due payment as per clauses 3.1 to 3.3 and net payment shall reduce accordingly.

4.0 Rates

- 4.1 The rates quoted by the bidder, shall be firm and inclusive of all taxes (including works GST & labour cess), duties, levies, etc. and all charges for packing forwarding, insurance, freight and delivery, installation, testing and commissioning etc. at site including temporary construction of storage, risks over head charges, general liabilities/

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obligations and clearance from CFO. However, the fee if any, for the CDO inspections shall be borne by the Department.

4.2 The contractor has to carry out maintenance as per manufacturer's standards for a period of 10 years (03 years comprehensive warranty + 07 years comprehensive annual maintenance contract from the date of successful installation, commissioning & testing of the system.

5.0 Completeness of tender

All sundry equipment, fitting, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specially mentioned in the tender documents or not.

6.0 Storage and Custody of Material

The agency has to make his own arrangement for storage. No separate storage accommodation shall be provided by the department. Watch and ward of the storage and their safe custody shall be responsibility till the final taking over of the installation by the department.

7.0 Care of the Building

Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste material arising out of the installation from the site of work.

8.0 Completion Period

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc, arrangement of materials & equipment, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

9.0 Guarantee/warranty:

9.1 All equipments shall be warranted for a period of 03years from the date of taking over the installation by the department against unsatisfactory performance and/ or breakdown due to defective design, workmanship or material. The equipment or component, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost to the satisfaction of the Engineer-in- Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of Engineer-in-Charge in this regard shall be final & binding on the contractor.

9.2 The bidder shall guarantee among other things, the following:

- (a) Quality, strength and performance of the material used as per manufacturer's standards.
- (b) Safe mechanical and electrical stress on all part under all specified conditions of operation.
- (c) Satisfactory operation during the maintenance period.

10.0 Water supply / Power Supply

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Water & power supply shall be made available by the department at one point in campus free of cost. Further, the arrangement for tapping power / water supply from this point shall be made by the contractor.

11.0 Acceptable makes of various equipments

The acceptable makes of various equipments/ components / accessories have been indicated in "Acceptable Makes" indicated in the list attached. The bidder shall work out the cost of the offer on this basis. Alternate makes are not acceptable.

12.0 Data Manual and Drawing to be furnished by the bidder:

12.1 With tender: The bidder shall furnish along with the tender, detailed technical literature, pamphlets and performance data for appraisal and evaluation of the offer.

12.2 After award of work: The successful bidder be required to submit the following drawings within 15 days of award of work of approval before commencement of installation.

(a) General arrangement drawing for the installation of all equipments like Detectors, R.I., C&I Panel etc. in the building with complete dimensions.

(b) Any other drawing necessary for the job.

13.0 The successful tender should furnish well in advance three copies of detailed instruction and manuals of manufacturer's for all items of equipments regarding installation, adjustment operation and maintenance including preventative maintenance and troubleshooting together with all the relevant data sheets, spare parts catalogue etc. all in triplicate.

14.0 Extent of Work

14.1 The work shall comprise of entire labour including supervision and all material necessary to make a complete installation and such tests and adjustment and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract as this is a turnkey job.

14.2 In addition to supply, installation, testing and commissioning of FAS/ AFAS including intelligent addressable FAS equipments, following works shall be deemed to be included with the scope of work to be executed by the bidder as this is a turnkey job-

(a) Minor building works necessary for installation of equipments, foundation making of opening in walls or in floors and restoring them to their original condition / finish and necessary grouting etc. as required.

(b) All supports for cable and MS Channel for erection as are necessary.

(c) Getting CFO inspection done and obtaining clearance. However, necessary fees for inspection shall be borne by the department.

15.0 Exclusion and work to be done by other agencies:

The following shall be excluded from the scope of work:

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- (a) Major dismantling of any existing building work.

16.0 Inspection and Testing

- 16.1** The material and equipments shall be offered for initial inspection at manufacturer's works. The contractor will intimate the date of testing of equipments at the manufacturer's work before dispatch. The successful bidder shall give advance notice of minimum two weeks regarding the dates proposed for such test to the department representative to facilitate his presence during testing. The Engineer- in-charge may witness such testing. The cost of the Engineer visit to the factory will be borne by the Department. Equipments will be inspected at the manufacturer/ Authorized Dealers premises before dispatch to the site by the contractor. Nothing extra shall be paid for initial inspection/testing at Manufacture Works.
- 16.2** Copies of all documents of routine and type test certificates of the equipment carried out at the manufactures premises shall be furnished to the Engineer-in- charge and consignee.

17.0 VALIDITY

Tenders shall be valid for acceptance for a period of **ninety days** from the date of opening.

18.0 COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS:

- 18.1** All works shall be carried out in accordance with relevant regulation both statutory and those specified by the Indian Standards related to the works covered by this specification in particular, the equipment and installation will comply with the following:
- (i) Factories Act.
 - (ii) Indian Electricity Rules
 - (iii) B.I.S.& other standards as applicable
 - (iv) Workmen's compensation Act.
 - (v) Statutory norms prescribed by local bodies like fire department, CEA, Power Supply Co. etc.
- 18.2** After completion of the installation the same shall be offered for inspection by the representatives of the C.F.O. The contractor will extend all help including test facilities to the representatives of CFO. The observation of CFO will be attended by the contractor.
- 18.3** Nothing in this specification shall be construed to relieve the successful tender of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- 18.4** Successful bidder shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the bidder. Failure to provide such safety requirements would make the bidder liable for penalty of Rs.500/- foreach default. In addition, the department will be at liberty to make arrangement for safety requirements at the cost of bidder and recover the cost thereof from him.

19.0 INDEMNITY

The successful bidder shall at all times indemnify the department, consequent on this works contract. The successful bidder shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising

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there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful bidder on account of the above.

20.0 Erection Tools:

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department .The successful tender shall make his arrangement for all these facilities

21.0 Cooperation with Other Agencies:

The successful bidder shall co-ordinate with other contactors and agencies engages in the construction of building if any, and exchange freely all technical information so as to make the execution of this work / contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantles and re-dune for want or cooperation and coordination by the bidder during the course of work, such expenditure incurred will be recovered from the successful bidder if the restoration work to the original condition or specification of the dismantled portion of work was not under taken by the bidder himself.

22.0 Mobilization Advance:

No mobilization advance shall be paid for this work.

23.0 Insurance and Storage:

All consignments are to be duly insured upto the destination from warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

24.0 Verification of Correctness of equipments at destination:

The contractor shall have to produce all the relevant records to certify that the genuine equipments from the manufacturers has been supplied and erected.

25.0 Painting

This shall include cost of painting of the entire installation. The major equipments like C&I Panel, cable trays etc. shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However hangers, supports etc. of cable tray etc. shall be painted with required shade including painting with two coats of anti corrosive primer paint at site.

26.0 Training :

The scope of work includes the on job technical training of two persons of department at site. Nothing extra shall be payable on this account.

27.0 Maintenance:

Sufficient trained and experienced staff shall be made available to meet any exigency of work during the Warrantee/CAMC period of Ten years from the handing over of the installation. The qualification of the service Engineer to be deputed and stationed at IIT Delhi premises for the Maintenance of CCTV system besides others

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during warrantee period/CAMC period will be A Graduate/Diploma Engineer having appropriate degree from reputed Institute with relevant experience in CCTV surveillancerelated works.

28.0 Interpreting Specification:

In interpreting the specification, the following order of decreasing importance shall be followed in case of contradictions:

- (a) Schedule of quantities
- (b) Technical Specification compliance
- (c) Commercial compliance
- (d) Seamless integration compliance
- (e) Drawing (if any)
- (f) General Specification
- (g) Relevant BIS or other international code in case BIS code is not available.

29.0	Applicable Law: The place of jurisdiction would be New Delhi (Delhi) INDIA.
30.0	Right to Use Defective Goods If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Institute shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
31.0	Warranty: (i) Warranty period shall be (as stated at page #2 of this tender) from date of installation of Goods at the IITD site of installation. The Contractor shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Contractor, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site. (ii) The Institute shall promptly notify the Contractor in writing of any claims arising under this warranty. Upon receipt of such notice, the Contractor shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Contractor shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Institute for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the Contractor having been notified fails to remedy the defects within 02 days, the Institute may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchase/Institute may have against the Contractor under the contract. (iii) The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned. The comprehensive warranty will commence from the date of the satisfactory installation/commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the components. (iv) Following items are covered during warrantee period under the scope of Comprehensive maintenance, Break down maintenance, Preventive maintenance i/c daily, monthly, quarterly and yearly maintenance of installation as per details furnished in the Tender document, shall be carried out. Comprehensive maintenance also includes supply/ replacement and repair of Units spares as required. No extra payment will be made for supply/ repair/ replacement of spare units/ components.

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	(v) The comprehensive maintenance of complete Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi during warranty period be carried out by providing at least one Service Engineer stationed at IIT Delhi all the time besides others during office hours (9AM to 6PM) on 6 days of week basis.
32.0	After the warranty period is over, Comprehensive Annual Maintenance Contract up to next Seven years should be started. The CAMC charges will not be included in computing the total cost of the equipment.
33.0	Terms of payments of AMC : The payments of Annual Maintenance Contract will be made on quarterly basis after satisfactory completion of each quarter.
34.0	User list: Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.
35.0	Defective Equipment: If any of the equipment supplied by the Bidder is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Bidder with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, IIT Delhi may consider "Banning" the supplier.
36.0	Downtime: During the warranty period and CAMC period not more than 5% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 5% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint within the business hours.
37.0	Disputes and Jurisdiction: Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within New Delhi.
38.0	Compliance certificate: This certificate must be provided indicating conformity to the technical specifications.
39.	Storage of CCTV data : 90 days

Additional Conditions on CAMC

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COMPREHENSIVE ANNUAL MAINTENANCE OF Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi:

After completion of Warrantee period, a Supplementary Agreement will be drawn as per provision in CPWD works manual 2014 at para 23.6 between the successful contractor and IITD. The terms and conditions of the Supplementary Agreement will be as follows:

SCOPE OF WORK

Following items are covered under the scope of Comprehensive maintenance, Break down maintenance, Preventive maintenance i/c daily, monthly, quarterly and yearly maintenance of installation as per details furnished here under, shall be carried out. Comprehensive maintenance also includes supply/ replacement and repair of Units spares as required. No extra payment will be made for supply/ repair/ replacement of spare units/ components. In the years of warranty period, the cost of comprehensive maintenance is deemed to have been included for which no extra payment shall be made. Bidder has to quote the rates for comprehensive maintenance for the subsequent year's i.e. 4th year to 10th year inclusive of spare parts equipments as stated above during the warranty period, No extra payment will be made for supply/ repair/ replacement of spare units/ component of complete CCTV system, if a system or part of the system remains unattended, necessary recovery will be made from his bill/deposit.

- i) Comprehensive annual maintenance of complete Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi be carried out by providing at least one Service Engineer stationed at IIT Delhi all the time besides others during office hours (9AM to 6PM) on 6 days of week basis.
- ii) Any other item/ activities associated with proper functioning of comprehensive maintenance of complete CCTV system deemed to have been included in the scope of work.
- iii) The maintenance work shall be got carried through the manufacturer/OEM appointed personnel only.
- (iv) The payment in respect of AMC shall be made in quarterly installments after rendering of service/ maintenance as per scope of the contract.
- (iv) In the event of failure to provide satisfactory maintenance support, the Institute shall be at liberty to forfeit a minimum 3 months payment from AMC charges. The decision of the Engineer in Charge in this regard shall be final & binding on the bidder.
- (v) If the dissatisfaction in maintenance support continues beyond two consecutive quarters, the Institute shall proceed against the bidder for forfeiture of the performance security and be at liberty to appoint another agency for Annual Maintenance Contract.
- (vi) The bidder shall provide complete technical support on (24x7) basis throughout the year for the CCTV Cameras and other equipment on call basis by sending highly skilled technical persons and also to appoint one service Engineer stationed at IITD premises, to look after the overall maintenance related to software and hardware of the complete CCTV system.
- (vii) Annual Maintenance Contract for operation of CCTV Cameras will be effective for 7 years excluding 03 year warranty period. The bidder shall offer the following services to the Institute.

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Sr. No.	Descriptions	Maintenance Time Schedule
1	Maintenance of CCTV wiring from switch to cameras including electrical wiring up to the UPS.	8 hours- all days
2.	Replacement of faulty Cameras, Switches, Server, VMS, Monitor, CPU, UPS etc.	24 X7 - all days
3.	CCTV data storage	90 days

List of approved Makes

S.No.	Item Description	Approved Makes
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C.....Nil I..... Nil O..... Nil



1	DOME CAMERA	Honeywell, Axis, Pelco, Bosch& Sony.
2	Multi Sensor Camera -	Honeywell, Axis, Pelco, Bosch& Sony.
3	OUTDOOR BOX CAMERA -	Honeywell, Axis, Pelco, Bosch& Sony.
4	BULLET TYPE FIXED CAMERA -	Honeywell, Axis, Pelco, Bosch& Sony.
5	PTZ CAMERA -	Honeywell, Axis, Pelco, Bosch& Sony.
6	SERVER -.	IBM, Dell, HP.
7	VIDEO MANAGEMENT SOFTWARE	Videonetics, Mirasys, Milestone, Honeywell, Bosch, Pelco, Axis& Sony.
8	PTZ JOYSTICK - Approved	Honeywell, Axis, Pelco, Bosch& Sony.
9	LED -	Samsung, LG & Panasonic.
10	WORK STATION.	HP, Dell & IBM
11	HARD DISK -	WD/Seagate.
12	16 PORT SFP SWITCH	CISCO Model No. "C9500-16X"
13	8 PORT SWITCH -	CISCO Model No – "WS-C2960L-8PS-LL"
14	24 PORT SWITCH -.	CISCO Model No- "C9200L-24-4G-E"
15	4 PORT INDUSTRIAL GRADE SWITCH	CISCO Model No - IE-1000-4P2S-LM
16	POLE -	Approved Make: ISI
17	SFP MODULE -.	CISCO
18	MEDIA CONVERTER -	D-Link/TP-Link
19	12 PORT LIU BOX -	D-LINK/Molex/APW/SYSTIMAX
20	ENCLOUSER BOX -	Comrack / Valrack / Netrack/Rittal/President.
21	OFC PIGTAIL -.	D-Link/Molex/ APW/ Systemax.
22	OFC PATCHCORD.	D-link/ Molex/APW/Systimax
23	6U RACK -	Comrack / Valrack / Netrack/Rittal/President.
24	42U RACK -	Comrack / Valrack / Netrack/Rittal/President.
25	POWER CABLE-	Polycab/Havells/ Finolex
26	12 CORE OFC CABLE -	Molex/AMP/D-Link
27	32MM HDPE PIPE -	ISI Certified
28	STP CAT 6 CABLE -	Molex/Sterlight/AMP
29	ONLINE UPS SINGLE PHASE	APC/ Uniline /Luminous/ Emerson
30	PVC CONDUIT -	BEC , Kalinga ,AKG

Annexure- A

Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server

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Dome Camera (1)	1. Make/Model. -----			
	2. Product S.No. -----		(Please furnish details)	
	Parameter	Value	Compliance YES/NO	Deviation If any should be clearly mentioned.
a.	Camera Type	True Day/Night IR Dome		
b.	CMOS	1/3.2" or better		
c.	Resolution	3MP or better		
d.	Frame Rate Configuration	3MP @ 25fps or better		
e.	Min. Illumination (color)	0.2 lux		
f.	WDR (dB)	120dB		
g.	Min. Pixels	2304×1303		
h.	Triple Streams	Required, individually configurable streams at different frame rates		
i.	Lens	3mm - 9mm motorized		
j.	Image Enhancement	Backlight Compensation & 3DNR		
k.	Privacy Mask	Required		
l.	IR LED	3 nos. high power		
m.	IR Range	20m		
n.	Audio	Dual Channel		
o.	Audio Protocols	G.711/AAC		
p.	SD Card Support	Upto 128GB		
q.	Alarm Input	1 nos. required		
r.	Alarm Output	1 nos. required		
s.	Compression	H.264 & MJPEG		
t.	PoE Class 3	Required		
u.	Power	12VDC / 24VAC / POE		
v.	Environmental Protection	IP 66/67		
w.	Vandal Proof	IK10		
x.	Operating Temperature Range	-30° C to 55° C		

C.....Nil

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O..... Nil



y.	ONVIF	Profile S & Profile G		
z.	Certification	UL, CE, EN, FCC, RoHS		

Multi Sensor Camera(2)	1. Make/Model. -----			
	2. Product S.No. ----- (Please furnish details)			
	Parameter	Value	Compliance YES/NO	Deviation If any should be clearly mentioned.
a.	Camera Type	True Day/Night Multi-Sensor		
b.	CMOS	4 x 1/3" CMOS Sensor or better		
c.	Resolution	8MP or better		
d.	Frame Rate	25fps or better		
e.	Min. Illumination (color)	0.01lux		
f.	Min. Pixels	1920 X 1080p per CMOS sensor		
g.	Lens	3mm/5mm fixed lens		
h.	Image Enhancement	BLC, HLC, 3DNR		
i.	Privacy Mask	Required		
j.	Triple Streams	Required, individually configurable streams at different frame rates		
k.	IR Illumination	Internal or External required		
l.	IR Range	30m		
m.	Audio	Dual Channel		
n.	Audio Protocols	G.711a/G.711u/AAC or equivalent		
o.	SD Card Support	Upto 128GB		
p.	Alarm Input	2 nos. required		
q.	Alarm Output	1 nos. required		
r.	Compression	H.264 & MJPEG		
s.	PoE+ (802.3at) Class 4	Required		
t.	Power	12VDC , 24VAC, POE+		
u.	Environmental Protection	IP 67		

C.....Nil

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v	Vandal Proof	IK10		
w	Operating Temperature Range	-10° C to 60° C		
x	ONVIF	Profile S & Profile G		
y.	Certification	UL, CE, EN, FCC Part 15, RoHS		

Box/ Bullet Camera (3)	1. Make/Model. -----			
	2. Product S.No. -----		(Please furnish details)	
	Parameter	Value	Compliance Yes/No	Deviation if any should be clearly mentioned
a.	Camera Type	True Day/Night IP Box / Bullet with IR		
b.	CMOS	1/3" or better		
c.	Resolution	2MP or better		
d.	Frame Rate	25fps or better		
e.	Min. Illumination (color)	0.01 lux @ F1.4		
f.	WDR (dB)	120dB		
g.	Min. Pixels	1920 x 1080		
h.	Triple Streams	Required, individually configurable streams at different frame rates		
i.	Lens	5mm - 50mm		
j.	Image Enhancement	Backlight Compensation, Highlight Compensation, 3DNR		
k.	Privacy Mask	Required		
l.	IR LED	3 x nos. or higher high power LED		
m.	IR Range	50m		
n.	Audio	Dual Channel		
o.	Audio Protocols	G.711a/G.711u/AAC		
p.	SD Card Support	Up to 128GB		
q.	Alarm Input	1 nos. required		
r.	Alarm Output	1 nos. required		
s.	Compression	H.264 & MJPEG		

C.....Nil

I..... Nil

O..... Nil



t.	PoE Class 3	Required		
u.	Power	12VDC		
v.	Environmental Protection	IP 67/66		
w.	Vandal Proof	IK10		
	Construction	Die-Cast Aluminium (Plastic/Fiber/Poly-carbonate will not be acceptable)		
x.	Operating Temperature Range	-30° C to 55° C		
y.	ONVIF	Profile S & Profile G		
z.	Certification	UL, CE, EN, FCC, RoHS		

Box/ Bullet Camera (4)	1. Make/Model. -----			
	2. Product S.No. ----- (Please furnish details)			
	Parameter	Value	Compliance- Yes/No	Deviation if any should be clearly mentioned.
a.	Camera Type	True Day/Night IP Box / Bullet with IR		
b.	CMOS	1/3" or better		
c.	Resolution	3MP or better		
d.	Frame Rate Configuration	3MP @ 25fps or better		
e.	Min. Illumination	0.12 lux @ F1.4 or better		
f.	WDR (dB)	120dB		
g.	Min. Pixels	2304x1303		
h.	Triple Streams	Required, individually configurable streams at different frame rates		
i.	Lens	3mm - 9mm motorized		
j.	Image Enhancement	Backlight Compensation & 3DNR		
k.	Privacy Mask	Required		
l.	IR LED	Required		
m.	IR Range	30m		
n.	Audio	Dual Channel		
o.	Audio Protocols	G.711/AAC		
p.	SD Card Support	Upto 128GB		
q.	Alarm Input	1 nos. required		

C.....Nil

I..... Nil

O..... Nil



r.	Alarm Output	1 nos. required		
s.	Compression	H.264 & MJPEG		
t.	PoE Class 3	Required		
u.	Power	12VDC / 24VAC / POE		
v.	Environmental Protection	IP 67/66		
w.	Vandal Proof	IK10		
x.	Operating Temperature Range	-30° C to 55° C		
y.	ONVIF	Profile S & Profile G		
z.	Certification	UL, CE, EN, FCC, RoHS		

PTZ Camera (5)	1. Make/Model. -----			
	2. Product S.No. ----- (Please furnish details)			
	Parameter	Value	Compliance Yes/No	Deviation if any should be clearly mentioned
a.	Camera Type	True Day/Night IP PTZ Camera		
b.	CMOS	1/2.8"		
c.	Resolution	2MP or better		
d.	Frame Rate	25fps or better		
e.	Min. Illumination (color)	0.2lux @ F1.6 or better		
f.	Min. Illumination (B/W)	0.2 lux @ F1.6		
g.	WDR (dB)	120dB		
h.	Min. Pixels	1920x1080		
i.	Triple Streams	Required, individually configurable streams at different frame rates		
j.	Lens	6mm - 180mm or 4.3mm to 129mm or 4.5mm to 135mm		
k.	Zoom Ratio	30x		
l.	Image Enhancement	BLC, 3DNR, DEFOG		
m.	Electronic Image Stabilization	Required		
n.	Privacy Mask	Required		
o.	IR Illumination	Internal or External required		

C.....Nil I..... Nil O..... Nil



p.	IR Range	150m or better		
q.	Audio	Dual Channel		
r.	Audio Protocols	G.711a/G.711u/AAC or equivalent		
s.	SD Card Support	Upto 32GB		
t.	Alarm Input	5 nos. required		
u.	Alarm Output	2 nos. required		
v.	Compression	H.264 & MJPEG		
w.	PoE	Required		
x.	Power	12VDC / 24VAC		
y.	Environmental Protection	IP 66		
z.	Vandal Proof	IK10		
aa.	Operating Temperature Range	-40° C to 60° C		
ab.	ONVIF	Profile S & Profile G		
ac.	Certification	UL, CE, EN, FCC		

6- Joystick

<u>Joystick</u>				
1. Make/Model. -----				
2. Product S.No. ----- (Please furnish details)				
S.No.	Parameter	Value	Compliance	Deviations if any (Should be clearly highlighted)
1	Compatibility	Should be Compatible with Proposed VMS without any additional license.		
2	Modes	TCP/IP Network Keyboard. USB Joystick not acceptable.		
3	Baud Rates	1200, 4800, 9600, 19200, 57600		
4	Joystick	3-axis proportional control		
5	Keys	Laser cut with blue backlight, fade free keys		
6	Touch Wheel	NVR control, Multiplexer, Camera selection		
7	Standard Keys	0-9, Clr, Ent, Cam, Mon, Mux, Device, Alarm, Seq, Login		

C.....Nil I..... Nil O..... Nil



8	Camera Function Keys	View, Tour, PTZ Call, Alt, Undo, Set, Iris, (2) Focus		
9	Quick Monitor Selection Keys	Two		
10	Storage Access Keys	Rec/Stop, Play Fwd, Play Rev, Search		
11	Function Keys	MAX Mode: (18) F1-9, F10+F1-9 Video BloX: (20) F1-10, Alt+F1-F10		
12	Touch Pad/Wheel & Touch Ring	Required		
13	LCD	Blue White backlight, 118 x 28 matrix		
14	LAN	RJ45 with POE		
15	COM 1 and 2	20% to 80%, non-condensing		
16	USB	Type A, Version 1		
17	Certifications	CE, FCC, UL		

7. Switch

S. No.	16 Port SFP Switch (1) CISCO- "C9500-16X"	Compliance (Only Yes/No)	Deviation if any should be clearly mentioned
1	Switch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port		
2	Should have 16 GB RAM and 16 GB Flash		
3	Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate.		
4	Switch should have hot swappable 1:1 redundant internal power supply.		
5	Switching system shall have minimum 32K MAC Addresses and 4K Vlans.		
6	Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes..		
7	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.		

C.....Nil

I..... Nil

O..... Nil



8	Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing.		
9	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.		
10	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.		
11	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.		
12	IPv6 support in hardware, providing wire rate forwarding for IPv6 network		
13	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.		
14	Eight egress queues per port for different types.		
15	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.		
16	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.		
17	Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards		
18	Switch shall have EAL3/NDPP certified from Day 1		

S. No.	8 PORT SWITCH (2) CISCO- "WS-C2960L-8PS-LL"	Compliance (Only Yes or No)	Deviation if any should be clearly mentioned
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C.....Nil

I..... Nil

O..... Nil



1	8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. SFP uplink ports loaded with 2 nos. of SMF modules Shall have minimum 20 Gbps of switching fabric and 14.88Mpps of forwarding rate.		
2	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z, 802.3az, 802.3af, 802.3at.		
3	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, spanning tree root guard and IPv6 First Hop Security.		
4	IPv6 QoS, IPv6 ACL, Multicast Listener Discovery (MLD v1/2) snooping, IPv6 applications and IPv6 First Hop Security.		
5	Switch should be IPv6 Certified/IPv6 logo ready.		
S.NO.	24 PORT SWITCH - CISCO- "C9200L-24P-4G-E"- (3)	Compliance (Only Yes or No)	Deviation if any should be clearly mentioned
1	Switch shall have minimum 24 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 370W of PoE Power and additional 4 nos. of SFP uplink ports loaded with 2 nos. of SMF modules.		
2	Shall have minimum 56 Gbps of switching fabric and 80 Mpps of forwarding rate.		
3	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3,		

C.....Nil I..... Nil O..... Nil



	802.3u, 802.3ab, 802.3z, 802.3af, 802.3at.		
4	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, spanning tree root guard IPv6 QoS and IPv6 ACL.		
S.NO.	4 PORT INDUSTRIAL GRADE SWITCH (4) CISCO- IE-1000-4P2S-LM	Compliance (Only Yes or No)	Deviation if any should be clearly mentioned
1	4 Port industrial Grade Network Switch shall have minimum 4 nos.		
2	10/100Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. SFP uplink ports loaded with SMF Modules.		
3	Shall have be IP30 rated and shall work on upto 60 deg C temp. in a sealed enclosure.		
4	Switch should be DIN Rail mountable. Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z, 802.3af, 802.3at.		
5	Switch should support port security, DHCP snooping, IGMP Snooping, BPDU Guard and spanning tree root guard.		
6	Switch shall be IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-47, IEC 60068-2-64 compliant. Switch shall be IEC 61000-4-5 and NEMA TS-2 compliant.		

8 - VMS

VMS	1. Make/Model. ----- 2. Product S.No. ----- (if any) (Please furnish details)
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C.....Nil I..... Nil O..... Nil



S.NO.	System Specification	Compliance Y/N	Deviation if any should be clearly highlighted
1	System Architecture		
1.01	The VMS architecture should comprise of centralised or decentralised architecture. The VMS should have system components such as Management Server to manage the system, Recorder or Media Server to stream and store the video feeds from the cameras and Database Server to store meta data information.		
1.02	The VMS should support single site or multi-site deployment scenarios. The VMS should have capability to aggregate videos from multiple sites to the central site for recording or monitoring. The VMS should also have the capability to aggregate the system alerts such as video analytics, user created alerts and system health alerts to the central site.		
1.03	The VMS should have been developed and built on operating system agnostic platform which can run on multiple operating systems environments such as Microsoft Windows, Linux and Unix.		
1.04	The VMS should support single or multiple recorder server deployments. The proposed VMS should support unlimited IP and Analog cameras by augmenting the computing and storage hardware. The proposed VMS should support unlimited number of VMS clients.		
1.05	The VMS architecture should support automatic assignment of the available cameras on the network to the available Recorder Servers based on the recorder server's resources such as number of cores, available RAM and resource utilisation. The VMS should support dynamic load balancing. No recording server should be kept idle. This should happen without manual intervention.		
1.06	VMS should support open source DBMS, e.g., Postgre SQL, MySQL besides MS SQL and Oracle. The VMS should be capable of supporting SQL or No SQL databases.		
1.07	The VMS should support redundancy at each level to avoid single point of failure. The redundancy should be built in to the platform and should offer failover support for Management Servers, Media / Recording Servers, Database Servers and Storage Medium.		
1.08	· VMS should support Failover against temporary disconnection of DBMS Service, without any loss of camera		

C.....Nil

I..... Nil

O..... Nil



	video. As soon as the DBMS service resumes, all data should automatically be synchronised to the Database.		
1.09	· Once configured, the Video Management System should not require reconfiguration of any kind when any server passes through a power Off-On cycle.		
1.10	· Each media server should have its own storage configuration. It should be possible to select storage location/s out of all available storage locations (including Local, DAS, NAS, and SAN storage) for each media server. The media server should support load balancing and fail-safe operation by distributing the video data on all selected storage locations. So, in case of failure of any storage location, the entire video data is not lost.		
1.11	In case of the failure of the Recording Server, the VMS should automatically assign the cameras on the failed recording server to other operational recording servers on the network. Manual intervention of any kind should not be required in such a case. When the failed server becomes active again, the cameras should be automatically allocated to the recorder server again without manual intervention. Deployment of a dedicated redundant server for this purpose should not be required.		
1.12	· The VMS should have published APIs to interface with external systems such as Command and Control Application, Incident Management System, etc.		
2	General VMS Functions		
2.01	· VMS should be able to detect ONVIF compliant IP cameras automatically.		
2.02	· The VMS should have ONVIF Profile S & G compliance.		
2.03	· The VMS should support H.265+, H.265, H.264, MJPEG CODECs.		
2.04	· The VMS should offer desktop client and web client.		
3	Storage & Recording Functions		
3.01	· The VMS should allow creation of customised recording profile. Such a profile should allow the operator to select multiple available camera streams. It should be possible to assign the recording profile to an individual camera or a group of cameras or all cameras.		
3.02	· The VMS should support ONVIF Profile G. The VMS should intelligently synchronise the edge recording on the camera with the central recording in case the camera loses the network connection.		



3,03	<ul style="list-style-type: none">The VMS should allow selection of single or group or all cameras for edge recording.		
3.04	<ul style="list-style-type: none">The VMS should allow the user to mark certain period of video recording as “critical data”. Such critical data should be retained by the system irrespective of the camera recording storage configuration.		
3.05	<ul style="list-style-type: none">VMS should allow the users to download multiple segments of the video from single or multiple cameras from the archive with an option to tag each downloaded segment with text messages. The Video segments should be downloaded in a single folder along with excel spreadsheet where details of each of the video segments are listed as hyperlinks to the exported video.		
3.06	<ul style="list-style-type: none">It should be possible to encrypt the exported video with password protection. The system should keep a record of such exported videos as audit trail.		
3.07	<ul style="list-style-type: none">It should be possible to create recording schedules on the fly, and assign any schedule to any camera, any group of camera or to all the cameras any time. The recording should be controlled on hourly basis. It should be possible to manage recording on per camera basis, each with different video settings (e.g. format, frame rate and resolution).		
3.08	<ul style="list-style-type: none">It should be possible to efficiently handle the storage by handling the recorded video in such a way that video is retained over a long period of time by decaying the video quality over a period of time without altogether deleting or overwriting the archived video. In addition, the facility should be provided to keep a high resolution image embedded inside the archived video for every segment of video (say 1 or 2 high resolution snap in 25fps video) so that such snaps could become useful later for investigation and at the same time video is also retained though at lower resolution.		
4	User Management & Administration		
4.01	<ul style="list-style-type: none">The VMS should support multiple directory access protocols such as Microsoft Active Directory or Lightweight Directory Access Protocol (LDAP).		
4.02	<ul style="list-style-type: none">The VMS should have a feature to restrict a user to a particular hardware workstation.		
4.03	<ul style="list-style-type: none">It should be possible to send messages o a particular user from the Administrator login. In case the user is offline or not logged in, the message should be delivered after the user logs in to the system.		



4.04	<ul style="list-style-type: none">· VMS should allow the user with Administrator privilege to import any Operator's screen on his/her desktop to watch the operator's activity on-line.		
5	VMS Client and Operator Functions		
5.01	<ul style="list-style-type: none">· The VMS should allow multi-monitor support for the client workstation.		
5.02	<ul style="list-style-type: none">· The VMS should store available screen layouts for each login user. The stored screen layout should be available on any of the operator workstations once the user logs-in.		
5.03	<ul style="list-style-type: none">· It should be possible to select cameras for synchronised and simultaneous archive viewing. It should be possible to record the videos being rendered from these cameras into a single video. This operation should be possible in a matrix recording or stitched recording options.		
5.04	<ul style="list-style-type: none">· The VMS desktop client should allow configuration of Video Management Server, Video Recorder Servers, Storage and Video Analytics. There should not be any requirement of logging in to the individual components for any configuration. It should be possible to create Video Analytics rules from the same desktop client.		
5.05	<ul style="list-style-type: none">· The VMS should allow creation of customised, layered maps using standard picture files and it should be possible to drag and drop the cameras on the map for easy navigation based on the location on the map. It should be possible to select any camera or group of cameras on the map for live viewing or archive viewing.		
5.06	<ul style="list-style-type: none">· The VMS should show event notification from the cameras on the map itself. The operator should be able to click on the event notification of a particular camera on the map and the VMS should open the event window on the operator screen.		
5.07	<ul style="list-style-type: none">· VMS should integrate with open source and free maps such as Google Maps.		
5.08	<ul style="list-style-type: none">· It should be possible to create a group of relevant cameras for simultaneous viewing. So, in case of an alert in one camera, the VMS should open the event window of the camera and also show live video from other cameras in the group in a synchronised manner. It should also be possible for the operator to view the archive video from all the open cameras simultaneously, in a time synchronised manner.		
5.09	<ul style="list-style-type: none">· The system should have PTZ camera control options within the matrix view of all the cameras. The PTZ controls should only be visible for PTZ camera/s. The operator should be able to control the PTZ camera within the matrix view itself.		



5.10	· The system should retain the VMS client screen state (including Video Analytics alert window, message window, Video Matrix, etc.) in case of an accidental shut down of the machine and should offer the exact same screen to the operator upon logging back into the system.		
5.11	· The VMS should allow sending the event alert to the designated person or a group of designated persons through SMS or Email.		
5.12	· VMS should allow transferring the event alert to an administrator or another user registered in the system.		
5.13	· The VMS should allow monitoring of archive video of the selected camera under categories such as events, motion or continuous recording. The VMS should also show a report of cameras indicating recording status for the selected duration, critical video data and Incident Video data.		
5.14	· VMS should allow camera clustering based on Locations as well as Groups independently.		
5.15	· Each operator should be able to monitor one or several clusters of camera		
5.16	· VMS should be able to prevent an operator from viewing/managing one or several clusters		
5.17	· VMS should allow managing at least 100 clusters of camera. Quantity of cameras per cluster should be unlimited.		
5.18	· VMS should allow assigning each camera to one or several clusters simultaneously.		
5.19	· The total hard drive space used to store the camera's recorded data should be displayed. The storage media could be the local hard drive or SAN / NAS storage.		
5.20	· The Client Viewer should support real time simultaneous view of 1, 2x2, 3x3, 4x4, 1+5, 1+7, 1+11, 8x8 and 10 x 10 multi-screens video display and a simple click should allow enlarging any of the multi-screen displays into a full screen display. On clicking again on the enlarged display, multi-screen display should reappear.		
5.21	· The Client viewer should have the feature to synchronize replay of selected cameras/all cameras in the view panel.		
5.22	· The Client Viewer should allow digital zooming on live view as well as on replay view on Fixed as well as PTZ Cameras. The VMS should also allow creating virtual camera views and monitor them separately.		
5.23	· The Client Viewer should support the use of keyboard shortcuts for control of standard features.		
5.24	· From the Client Viewer it should be possible to:		
5.25	· Run instant replay of any camera on display		

C.....Nil

I..... Nil

O..... Nil



5.26	. Bookmark of any important event to facilitate search and retrieval		
5.27	. Bookmark the display layout with selected distribution of cameras across the panel		
5.28	. Drag a line on the Sitemap touching one or more cameras and the cameras touched by the line should appear for live view on the screen.		
5.29	. Activate manually triggered events.		
5.30	. Use sound notifications for attracting attention to detected motion or events.		
5.31	. Get quick overview of sequences with detected motion.		
5.32	. Get quick overviews of detected alerts or events.		
5.33	. Quickly search selected areas of video recording for motion		
5.34	Skip gaps during playback of recordings.		
5.35	. Configure and use several different joysticks.		
5.36	. Print images, with optional comments.		
5.37	. Copy images for subsequent pasting into word processors, email, etc.		
5.38	. Export recording (e.g. for use as evidence) in AVI, MP4 and JPEG formats		
5.39	. The Client Viewer should have the capability to receive multicast streams if a preset number of clients are requesting the same live view camera. The Operator should have the option to configure the system to always receive unicast streams at the discretion of the system administrator. The system should have the capability to detect if the network becomes unreliable and to automatically switch to unicast to ensure that the operator is able to receive video.		
5.40	. The operator should have the ability to use digital zoom where the zooming is performed in the image only on any number of cameras simultaneously. This functionality should be the default for fixed cameras. The use of digital zoom should not affect recording or other users.		
5.41	. The Client Viewer should integrate the following viewing capabilities:		
5.42	. Matrix Switching: The Client viewer should allow switching amongst multiple selected bookmarked display layouts with pre-determined time duration for each matrix view.		
5.43	. Matrix Window – A window that is used to display cameras on demand or by an external event		



5.44	<ul style="list-style-type: none">· Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to “stitch” / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.		
5.45	<ul style="list-style-type: none">· The Client Viewer should display a time line for each camera to represent recorded video sequences. The Client Viewer should indicate whether the video was recorded due to motion activation or recorded without motion or pre and post alarm video. The time line band should be highlighted based on the camera view selected in the display. The Client Viewer should allow video sequences for the displayed cameras to be reviewed simultaneously.		
5.46	<ul style="list-style-type: none">· The Map should be a part of the Client viewer application and VMS should allow detaching the map and showing it separately on another monitor connected to the Client viewer machine (in case of Multi-monitor workstation).		
6	Health Monitoring & Audit Trail		
6.01	<ul style="list-style-type: none">· The VMS desktop client should show vital system parameters for components such as Database Server, Media Servers, Local Workstation and Storage System (all available storages). The client should show the parameters such as CPU Core Usage, RAM Utilisation and Storage Utilisation.		
6.02	<ul style="list-style-type: none">· The VMS client should have automatic or manual selection of hardware accelerator decoder or software accelerator decoder for smooth media rendering based on the available resources.		
6.03	<ul style="list-style-type: none">· The VMS should have reports such as camera uptime availability, camera recording percentage, recording status, critical events, incident video, etc.		
6.04	<ul style="list-style-type: none">· The System health status like Server failure, Camera Disconnection, Storage Full Indication, etc. should always be displayed within the GUI all the time.		
6.05	<ul style="list-style-type: none">· VMS should maintain a continuous log of Server Status Messages, Camera Connectivity, Storage Status, Recording ON/OFF, User Activity Logs, etc. which should be accessed from the workstations using different filters.		



6.06	· The VMS should allow for continuous monitoring of the operational status and event-triggered alarms from servers, cameras and other devices. The health monitoring module should provide a real-time overview of alarm status or technical problems while allowing for immediate visual verification and troubleshooting.		
6.07	· The system should give full audit trail of the user activities in the system.		
6.08	· The system log should be searchable by Level, Source and Event Type.		
6.09	· The Audit Log should record remote user activity (searchable by User name, Audit ID, Source and Location)		
6.10	· The Alert Log should record alerts triggered by rules (searchable by Alert type, Source and Event type)		
6.11	· The Event Log should record event-related information (searchable by Service name, Source and Event type)		
6.12	· The Rule Log should record rules in which the Make new <log entry> action been specified (searchable by Service name, Source, Event type and Rule name)		
6.13	· The VMS should allow monitoring of the desktop screen activity of a user from the Administrator user console. This feature should replicate the entire user desktop and not just the VMS application window. This feature is required for audit of the operators. It should also be possible to monitor desktops of multiple users and record the entire activity to a file for any duration required.		

9.Server

S.No.	Product Line Description (Management Server)	Compliance (Only Yes or	Deviation if any should
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C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



		No)	be clearly highlighted
1.	Intel Xeon E5 26xx or higher Speed 2.5 GHz or Higher Intel C600 or better on Intel or Equivalent OEM Mother Board Original Intel or OEM manufactured.		
2.	8 Core Cache 10 MB L3 Cache System Bus/QPI 5 GTS/Sec Chipset		
3.	Intel C600 or better on Intel or Equivalent OEM Mother Board Original Intel or OEM manufactured.		
4.	Memory 32 GB ECC DDR-III @ 1333 MHz or higher RAM expandable upto 192 GB Hard disk Drive		
5.	2 x 250 GB SATA OS Mirrored Drives, Size: 3.5- inch/2.5-inch		
6.	Capacity:-3 TB SATA Audio Video/Surveillance Optimized Disk Interface :- minimum 6 Gb/s RPM Speed:- 7200 rpm Cache:-64 MB Cache HDD expansion bays,		
7.	Minimum 8 bays for LFF Drives and 16 Bays for LFF RAID 0,1 Expansion Slots 4 PCI/PCI Express or more Video Graphics		
8.	Integrated Graphics to support VGA and above resolution Ports 4 USB & 1 Serial port Power Supply		
9.	Redundant Hot Plug Power Supplies with Cooling option to meet the requirement,		
10.	Fans Redundant Fans OS Supported Window Server 2008/ Linux Ethernet Card Quad LAN (10/100/1000) Network Card with asset feature tracking and security management		
11.	Remote wake up Preloaded Software Server Management Software and Standard Viewing, Recording, Control and Playback Software for IP Cameras.		

Annexure -B

Commercial compliance Sheet:

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



S.No.	Item	Description	Compliance- Yes/No
1.	Legal Entity	The bidder should be a company registered under Indian Companies Act, 1956 or a partnership firm registered under Indian Partnership Act, 1932. (Copy of certificates of Incorporation/ Registration be submitted)	
2.	Financial: Turnover	Average Annual Turnover of the bidder during the last three financial years, i.e., 2016-2017, 2017-2018 and 2018-2019 (as per the last published audited balance sheets), should be 100 percent estimated value of the project. The bidder should have not incurred loss in any of the last 3 financial years. (CA Certificate with CA's Registration Number/ Seal be submitted.)	
3.	Financial: Reference Projects	- The bidder must have completed similar SITC works of CCTV during last Seven years of minimum value not less than 80% of estimated value against one single work or two works of similar nature each costing not less than 60% of estimated value or three similar works each costing not less than 40% of estimated value. (Completion Certificate be submitted)	
4.	Technical Capability	The bidder must have successfully completed at least one video surveillance project having minimum 170 cameras in any one project in Govt. Buildings/ Metro/Airport/ IT Infra/City surveillance in India during last 5 financial years. The bidder should be in the business of supply, installation, testing, commissioning & maintenance of CCTV systems for at least last 7 years. (Completion Certificate from the Client be submitted)	
5.	Tax registration and clearance	The lead bidder should have a registered number of GST PAN number. (Copies of relevant certificates of registration GST and PAN number be submitted)	
6.	ISO Certifications	The bidder must possess at the time of bidding, a valid ISO9001 or higher and ISO27001 Certificate. (Copy of a valid certificate be submitted)	
7.	Service Setup	The bidder must have local office or service setup in within 20 KMs of the Project location to meet the SLA's. (Copy of relevant proof be submitted)	
8.	OEM for CCTV	OEM has to authorize bidder to participate in tender through authorization letter, also known as Manufacturer's Authorization Form (MAF). The MAF should have to be on OEM's original letter head, duly ink signed and stamped on bond paper. (OEM MAF required)	

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9.	OEM for CCTV	OEM has to comply technical specifications compliance as per Annexure A on its letter head along with the MAF issued to the bidder. OEM has to supply products as quoted in the MAF. (Required Technical Compliances as per Annexure – A attached on OEM Letter Head be submitted).	
10.	OEM for CCTV	OEM has to provide spare parts support for the quoted solution for at least 7 years after the warranty period and during the 3 years warrantee period from successful installation, testing and commissioning of the system..(Undertaking required from OEM Letter Head).	
11.	OEM for CCTV	For each of the goods/products, bidder shall quote only one specific make and model from only one specific OEM. Providing more than one option shall notbe allowed. All goods quoted by the Bidder must be associated with item code and names and with printed literature describing configuration and functionality.	
12.	OEM for CCTV	OEMs of proposed equipment/components should have an office as a registered company in India for last ten years as on the bid issuance date. Representation through JV/Distributorship shall not be considered. (Documentary Proof Required).	
13.	OEM for CCTV	- OEM for CCTV shall have authorized CCTV service/ repair facility in nearest metropolitan city of New Delhi or National Capital Region. (Documentary Proof Required).	
14.	Offered CCTV	Offered CCTV solution should be seamlessly integrated with existing CCTV System of IIT Delhi. (OEM Undertaking required on OEM Letter Head).	
15.	Others	Successful Technical bids shall mean the bidder declared technically successful strictly based on the layout, design parameters, OEM technical requirements, terms & conditions and specification given in the tender document. (Certification from OEM for all items other than Camera/VMS/ Network Switches to be attached.)	
16.	Others	All the bidder to confirm that they will have to conduct a proof of concept (POC) for all IP cameras along with Server/NMS/VMS respectively along with software and other accessories. (Undertaking from Bidder on their Letter Head be submitted.)	
17.	Switches	All the Grade Network Switch from CISCO only. (MAF directly from Cisco is required.)	

ANNEXURE - 1

<< Organization Letter Head >>

DECLARATION

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I / We, _____ hereby declare that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I / we have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

1	Name & Address of the bidder	:	
2	Phone	:	
3	E-mail	:	
4	Contact person name	:	
5	Mobile number	:	
6	GSTIN number	:	
7	PAN number	:	
8	UTR no. [for payment of EMD]	:	
	BANK DETAILS		
9	Bank name	:	
10	Branch address	:	
11	Branch telephone no.	:	
12	MICR Code of the bank	:	
13	IFSC code	:	
14	Bank Account no.	:	
15	Type of account	:	
16	Blank Cheque	:	To be enclosed

We further declare that our organization has not been blacklisted / delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

[Signature of the bidder]

Name:

Seal of the bidder

IITD -2010 CORRECTION SLIPS

In General condition of contract for IIT Delhi works department 2010 –

Reference	Existing	Modified
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Clause 10B (ii), Para-2	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount of advance & valid for the contract period. This shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the contract period. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.
Clause 3 (vii)	If the contractor shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering.	If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.

Reference	Existing Provision	Modified Provision
Page 5, IITD 2010	<p>Page 5, IITD 2010</p> <p>4A. Applicable for Percentage Rate Tender only (IITD-7)</p> <p>In case of Percentage Rate Tenders, abidder shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.</p>	<p>Page 5, IITD 2010</p> <p>4A. Applicable for Percentage Rate Tender only (IITD-7)</p> <p>In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if :-</p> <ol style="list-style-type: none"> 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender. 2. The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender. 3. The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender: Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

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		<p>New Para 4B is added as below: 4B: In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/ below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited. If the revised tendered amount of two more contractors received in revised offer is again found to be equal , the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle & the lowest contractors those have quoted equal amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.</p>
Reference	Existing Provision	Modified Provision
10A (page 6-7)	In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However if the contractor has worked out the amount of the tender and if any discrepancy is found in	In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. (Remaining part deleted)

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	<p>the percentage quoted in words and figures, the percentage which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of the tender is not worked out by the contractor or it does not correspond with the percentage written either in figures or in words, then the percentage quoted by the contractor in words shall be taken as correct. Where the percentage quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount.</p>	
Reference	Existing Provisions	Modified Provisions
Deviations/ Variations Extent and Pricing	<p><u>CLAUSE 12</u></p> <p>The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided.</p>	<p><u>CLAUSE 12</u></p> <p>The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided.</p> <p>The completion cost of any agreement for Maintenance works including works of up gradation, aesthetic, special repair, addition/ alteration shall not exceed 1.25 times of Tendered amount.</p>

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Deviations, Extra Items, Pricing	12.2 In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 90 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined.	12.2 A. For Project and original works: In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 90 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined. B. For Maintenance including works of up gradation, aesthetic, special repair, addition/ alteration: In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above below quoted contract amount. Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.
Deviation, Substituted Items, Pricing	In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para. (a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).	A. For Project and original works: In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para. (a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the

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	<p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)</p>	<p>substituted item shall be the rate for the agreement item (to be substituted).</p> <p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). For Maintenance including works of up gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of Substitute Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above below quoted contract amount.</p> <p>Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.</p>
<p>Deviation, Deviated Quantities, Pricing</p>	<p>In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.</p>	<p>A. For Project and original works:</p> <p>In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.</p>

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		<p>B. For Maintenance including works of up-gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of contract items, which exceed the limit laid down in schedule F, the contractor shall be paid rates specified in the schedule of quantities.</p>
	<p>12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>	<p>12.3 A. For Project and original works:</p> <p>The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p> <p>B. For Maintenance including works of up-gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of decrease in the rates Prevailing in the market of items for the work excess of the limits laid down in Schedule F, and the</p> <p>Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>
Schedule F	<p>Clause 12</p> <p>No provision.</p>	<p>Clause 12</p> <p>Type of work ___ *** _____</p> <p>*** To be filled by NIT approving authority either Project and original work or Maintenance works including works of up-</p>

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		gradation, aesthetic, special repair, addition/alteration.
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ONLINE BID SUBMISSION:

The Online bids (complete in all respect) must be uploaded online in **two** Envelopes as explained below:-

Envelope – 1 (Following documents to be provided as single PDF file)	
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Sl. No.	Documents	Content	File Types
1.	Technical Bid	Annexure 1 [duly filled in preferably typed] and got signed	.PDF
2.		Attested Certificate of work experience as desired	.PDF
3.		Certificate of registration for GSTIN	.PDF
4.		Affidavit as per NIT condition 1.2.2 to be submitted on stamp paper	.PDF
5.		Acceptance to execute INTEGRITY PACT [see integrity pact]	.PDF
6.		EPFO & ESIC Registration proof	.PDF
7.		IITD 7 / 8 duly signed. [at page-23]	.PDF
8.		MSME / NSIC Registration [If the bidder claims for EMD exemption]	.PDF
9.		OEM authorization letter duly ink signed (MAF directly from OEM this work should be submitted for SITC of the equipment along with years of comprehensive warrantee and 7 years CAMC support.	.PDF
10.		Technical specification Compliance sheet as per Annexure- A should be duly ink signed and vetted by OEM.	
11.		Commercial compliance sheet as per Annexure - B along with all supporting documents.	
12.		Seamless connectivity compliance with existing CCTV systems of IIT Delhi should be duly ink signed and vetted by OEM.	
13.		Any other document as specified in the NIT	.PDF
Envelope – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in BOQ format.	. BOQ

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS: NEW DELHI-110016

SCHEDULE OF QUANTITY

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**N/W :Supply, Installation, Testing & Commissioning of IP Network low light IR outdoor/indoor cameras in campus and different buildings of IIT Delhi.**

S.No	Item Description	Qty.	Unit	Unit Rate	Total
1	DOME CAMERA - Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Dome Camera, 1/3.2" CMOS, 3 MP @ 25fps or better, triple stream, Min. Illumination required 0.2 lux @ F1.4 (color), 120dB True WDR, Min. Pixels 2304x1303p, triple stream, 3mm - 9 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, 3 IR LEDs Smart IR with upto 20m IR distance, H.264& MJPEG, Dual channel Audio G.711a/G.711u/AAC, 128GB SD card support, IP 66/67 & IK10, Alarm: 1 In & 1out, PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminum Construction, Having Operating temp range : -30°C to 55° C. Certifications: ONVIF Profile S & Profile G compliant, UL, CE, EN, FCC &RoHS compliant.	39	Nos.		
2	Multi Sensor Camera - Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Outdoor Multi-Sensor Camera, 1/3" CMOS x 4 nos., 8 MP @ 25fps or better, triple stream, Min. Illumination required 0.01 lux (color), Min. Pixels 1920 x 1080 per sensor, triple stream, 3mm/5mm fixed lens, BLC, HLC, 3DNR, Privacy Mask, Internal/External 5nos. IR LEDs with upto 30m IR distance, Dual channel Audio G.711a/G.711u/AAC, 128GB SD card support, Alarm: 2 In/ 1out, PoE, H.264 High Profile and MJPEG, PoE+ (802.3at) Class 4, IP 67, IK 10 vandal proof, Die-Cast Aluminum Construction, Having Operating temp range : -10°C to 60° C. Certifications: ONVIF Profile S & Profile G compliant, UL, CE , FCC Part 15 &RoHS compliant.	50	Nos.		

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3	OUTDOOR BOX CAMERA - Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Outdoor Box/Bullet type fixed Camera, 1/3" CMOS, 2 MP @25fps, triple stream, Min. Illumination required 0.01 lux @ F1.4 (color), 120dB True WDR, Min. Pixels 1920×1080p, triple stream, 5mm - 50mm variable focus & zoom lens, Backlight Compensation, Highlight Compensation, 3DNR, Privacy Mask, Internal/External Smart IR LEDs with upto50m IR distance, H.264& MJPEG, Dual channel Audio G.711a/G.711u/AAC, 128GB SD card support, IP 66/67 & IK10, Alarm: 1 In & 1out, PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminum Construction, Having Operating temp range : -30°C to 55° C. Certifications: ONVIF Profile S & Profile G compliant, UL, CE, EN, FCC &RoHS compliant.	25	Nos.		
4	BULLET TYPE FIXED CAMERA - Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IR Bullet type fixed Camera, 1/3" CMOS, 3MP @ 25fps or better, triple stream, Min. Illumination required 0.12 lux @ F1.4 (color), 120dB True WDR, Min. Pixels 2304×1303p, triple stream, 3mm - 9 mm motorized focus & zoom lens, Backlight Compensation, 3DNR, Privacy Mask, Internal/External Smart IR LEDs with upto30m IR distance, H.264& MJPEG, Dual channel Audio G.711a/G.711u/AAC, 128GB SD card support, IP 66/67 & IK10, Alarm: 1 In & 1out, PoE, H.264 High Profile and MJPEG, PoE Class 3/ 12V DC/24VAC, Die-Cast Aluminum Construction, Having Operating temp range : -30°C to 55° C. Certifications: ONVIF Profile S & Profile G compliant, UL, CE, EN, FCC &RoHS compliant.	125	Nos.		



5	<p>PTZ CAMERA - Supply, Installation, Testing & Commissioning of IP Network TDN Low-Light IP PTZ Camera, 1/2.3" CMOS, 2MP@25fps,H.264, MJPEG, Min. Illumination required 0.2 lux @ F1.6 (color), 120dB True WDR, Min. Pixels 1920 × 1080p, triple stream, 4.3mm - 129mm OR 4.5mm - 135mm OR 6mm - 180mm lens, 30X motorized focus & zoom lens, Backlight Compensation, 3DNR, Defog, Electronic Image Stabilization, Privacy Mask, Internal / External Smart IR with 150 Meter or better IR distance, Dual channel Audio G.711a/G.711u/AAC, 32GB SD card support, Alarm: 5 In/ 2out, PoE, H.264 High Profile and MJPEG, High-PoE and 12V DC/24VAC, IP 66, IK 10 vandal proof, Having Operating temp range : -40°C to 60° C. Certifications: ONVIF Profile S compliant, UL, CE, EN, FCC &RoHS compliant.</p>	8	Nos.		
6	<p>SERVER - Supply, Installation, Testing & Commissioning of Management Server Processor Intel Xeon E5 26xx or higher Speed 2.5 GHz or Higher 8 Core Cache 10 MB L3 Cache System Bus/QPI 5 GTS/Sec Chipset Intel C600 or better on Intel or Equivalent OEM Mother Board Original Intel or OEM manufactured Memory 32 GB ECC DDR-III @ 1333 MHz or higher RAM expandable upto 192 GB Hard disk Drive 2 x 250 GB SATA OS Mirrored Drives, Size: 3.5- inch/2.5-inch Capacity:-3 TB SATA Audio Video/Surveillance Optimized Disk Interface :- minimum 6 Gb/s RPM Speed:-7200 rpm Cache:-64 MB Cache HDD expansionbays Minimum 8 bays for LFF Drives and 16 Bays for LFF RAID0,1 Expansion Slots 4 PCI/PCI Express or more Video Graphics Integrated Graphics to support VGA and above resolution Ports 4 USB & 1 Serial port Power Supply Redundant Hot Plug Power Supplies with Cooling option to meet the requirement Fans Redundant Fans OS Supported Window Server 2008/ Linux Ethernet CardQuad LAN (10/100/1000) Network Card with asset featuretracking and security management, remote wakeup Preloaded SoftwareServer Management Software and Standard Viewing, Recording,Control and Playback Software for IP Cameras.</p>	1	LOT		

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7	<p>VIDEO MANAGEMENT SOFTWARE - Supply, Installation, Testing & Commissioning of Video Management Software for 300 Cameras. The VMS architecture should comprise of centralized or decentralized architecture. The VMS should have system components such as Management Server to manage the system, Recorder or Media Server to stream and store the video feeds from the cameras and Database Server to store meta data information, The VMS should support single site or multi-site deployment scenarios. The VMS should have capability to aggregate videos from multiple sites to the central site for recording or monitoring. The VMS should also have the capability to aggregate the system alerts such as video analytics, user created alerts and system health alerts to the central site, The VMS should have been developed and built on operating system agnostic platform which can run on multiple operating systems environments such as Microsoft Windows, Linux and Unix, The VMS should support single or multiple recorder server deployments. The proposed VMS should support unlimited IP and Analog cameras by augmenting the computing and storage hardware. The proposed VMS should support unlimited number of VMS clients, VMS should support open source DBMS, e.g., Postgre SQL, My SQL besides MS SQL and Oracle. The VMS should be capable of supporting SQL or No SQL databases, VMS should support Failover against temporary disconnection of DBMS Service, without any loss of camera video. As soon as the DBMS service resumes, all data should automatically be synchronized to the Database, Each media server should have its own storage configuration. It should be possible to select storage location/s out of all available storage locations (including Local, DAS, NAS, and SAN storage) for each media server. The media server should support load balancing and fail-safe operation by distributing the video data on all selected storage locations. So, in case of failure of any storage location, the entire video data is not lost, The VMS should have published APIs to interface with external systems such as Command and Control Application, Incident Management System, etc., VMS should be able to detect ONVIF compliant IP cameras automatically, The VMS should have ONVIF</p>	1	LOT		
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O..... Nil



	Profile S & G compliance, The VMS should support H.265+, H.265, H.264, MJPEG CODECs, The VMS should offer desktop client and web client.				
8	PTZ JOYSTICK - Supply, Installation, Testing & Commissioning of POE based Joystick Controller having Touch wheel for camera & NVR/ Suitable Hardware control, Multiple connectivity options (RS232/422/485 and TCP/IP), Web browser for easy upgrading and configuring, Backlit Keys with pleasant adjustable blue or white LED, Laser cut ergonomic keys which shall be fade free, Min. two nos. Quick Monitor section keys, should have camera function keys for View, Tour, PTZ Call, Alt, Undo, Set, Iris, Focus. Etc. with Touch Pad for Fast Fwd, Reverse, Play actions etc. with all necessary accessories like AC Plug Adaptor, LAN Patch/Crossovers etc. Certification: UL, CE, FCC.	2	Nos.		
9	LED - Supplying, Installation, Testing & Commissioning of 55" LED TV with 1920x1080 full HD resolution and as per specifications attached suitable for mounting on wall including connection etc.	4	Nos.		
10	WORK STATION - Supply, Installation, Testing & Commissioning of Client WorkStation with CPU of Intel Core i7 Processor, With 8GB RAM, 1 GB Graphic Card, and 500 GB HDD.	2	Nos.		
11	HARD DISK - Supply, Installation, Testing & Commissioning of 432 TB Video Hard Disk.	1	LOT		
12	16 PORT SWITCH - Supply, Installation, Testing & Commissioning of 16 Port Switch witch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port Should have 16 GB RAM and 16 GB Flash Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate. Switch should have hot swappable 1:1 redundant internal power supply. Switching system shall have minimum 32K MAC Addresses and 4K Vlans. Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes. Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.	3	Nos.		

C.....Nil

I..... Nil

O..... Nil



	<p>Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing. Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing. Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Net conf/YANG. Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security. IPv6 support in hardware, providing wire rate forwarding for IPv6 network Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment. Eight egress queues per port for different types. During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic. Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries. Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards Switch shall have EAL3/NDPP certified from Day 1</p>				
13	<p>8 PORT SWITCH - Supply, Installation, Testing& Commissioning of 8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. Combo uplink ports loaded with 2 nos. of SMF modules Shall have minimum 20 Gbps of switching fabric and 14.88Mpps of forwarding rate. Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z, 802.3az, 802.3af, 802.3at. Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, spanning tree root guard and IPv6 First Hop Security. IPv6 QoS, IPv6 ACL, Multicast Listener Discovery (MLD v1/2) snooping, IPv6 applications and IPv6 First Hop Security. Switch should be IPv6 Certified/IPv6 logo ready.</p>	7	Nos.		



14	<p>24 PORT SWITCH - Supply, Installation, Testing & Commissioning of POE Layer II managed ethernet switch, 24 port RJ45 10/100/1000 T with 2 nos. OFC Port. Switch shall have minimum 24 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 370W of PoE Power and additional 4 nos. of SFP uplink ports loaded with 2 nos. of SMF modules. Shall have minimum 56 Gbps of switching fabric and 80 Mpps of forwarding rate. Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z, 802.3af, 802.3at. Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, spanning tree root guard IPv6 QoS and IPv6 ACL.</p>	3	Nos.		
15	<p>4 PORT INDUSTRIAL GRADE SWITCH - Supply, Installation, Testing & Commissioning of 4 Port industrial Grade Network Switch shall have minimum 4 nos. 10/100Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. SFP uplink ports loaded with SMF Modules. Shall have be IP30 rated and shall work on upto 60 deg C temp. in a sealed enclosure. Switch should be DIN Rail mountable. Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z, 802.3af, 802.3at. Switch should support port security, DHCP snooping, IGMP Snooping, BPDU Guard and spanning tree root guard. Switch shall be IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-47, IEC 60068-2-64 compliant. Switch shall be IEC 61000-4-5 and NEMA TS-2 compliant.</p>	80	Nos.		
16	<p>POLE - Supply, Installation, Testing & Commissioning of 6 Meter long hexagonal GI POLE with suitable cement concrete foundation including excavation, including supply and fixing of foundation & all civil work suitable for outdoor camera including connection etc. complete as per specifications : Specification - Supply of 80mm Dia GI Pipe pole B class 6 Mtr length duly painted complete with accessories required for installation of CCTV equipments. box mounted up to 1.25 meter from ground level for switch with lock & various cable arrangements for camera & network equipment i/c anti climbing arrangement for protection of system from monkey etc. Vendor should supply all the mounting accessories. as per specifications i/c Erection of 6 mtr. length GI pole in cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 40 mm nominal size) foundation</p>	86	Nos.		

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).



	including excavation and refilling etc i/c Providing and making collar with cement concrete (1 cement: 3 coarse sand: 6 stone aggregate 20 mm) of specified size and shape including from work, plastering if required, curing etc. as required				
17	SFP MODULE - Supply, Installation, Testing & Commissioning of Gigabit SFP Module as per specifications complete as required.	154	Nos.		
18	MEDIA CONVERTER - Supply, Installation, Testing & Commissioning of Single mode 10/100/1000 Media Converter	22	Nos.		
19	12 PORT LIU BOX - Supply, Installation, Testing & Commissioning of 12 PORT loaded Fiber LIU Box including connection as per specifications & complete as required.	91	Nos.		
20	ENCLOUSER BOX - Supply, Installation, Testing & Commissioning of 380*380*210 IP66 Enclosure complete with pole mounting accessories.	84	Nos.		
21	OFC PIGTAIL - Supply, Installation, Testing & Commissioning of single mode OFC Pigtail.	200	Nos.		
22	OFC PATCHCORD - Supply, Installation, Testing & Commissioning of OFC Patchcord.	154	Nos.		
23	6U RACK - Supply, Installation, Testing & Commissioning of 6U rack.	12	Nos.		
24	42U RACK - Supply, Installation, Testing & Commissioning of 42U rack.	2	Nos.		
25	POWER CABLE - Supply and fixing/laying of Power Cable 3 Core, Conductor size: 1.5 sq mm, multi strand with standard annealed electrolytic copper conductor suitable for single phase 230V AC supply/ DC supply in existing PVC Conduit/surface etc as reqd.	10000	Per Mtr		
26	12 CORE OFC CABLE - Supply, Installation, Testing & Commissioning of 12 Core OFC single mode Cable in the existing pipe.	8000	Per Mtr		
27	32MM HDPE PIPE - Supply, Installation, Testing & Commissioning of 32mm HDPE Pipe in the existing trench.	8000	Per Mtr		
28	STP CAT 6 CABLE - Supply, Installation, Testing & Commissioning of STP CAT 6 Cable	5000	Per Mtr		
29	Laying of HDPE pipe in ground etc. (Through Trenchless where as required) Size- 32mm	8000	Per Mtr		
30	GPS Scanning of Laid OFC & Other Cables.	5000	Per Meter		
31	1KVA ONLINE UPS SINGLE PHASE - Supply, Installation, Testing & Commissioning of 1KVA Online UPS with 30 min. backup.	40	Nos.		

C.....Nil

I..... Nil

O..... Nil



32	3 KVA ONLINE UPS- SINGLE PHASE - Supply, Installation, Testing& Commissioning of 3KVA Online UPS with 30 min. backup.	1	No.		
33	10 KVA ONLINE UPS-SINGLE PHASE- Supply, Installation, Testing & Commissioning of 10KVA Online UPS with 30 min. backup.	1	No.		
34	PVC CONDUIT - Supply, Installation, Testing & Commissioning of PVC Conduit On Surface	5000	Per Mtr		
35	Optional) Comprehensive Annual Maintenance Charges with one Service Engineer during office hours on six days basis for 7 years including cost of Spares & Services after Expiry of 3 year warranty period [One job means carrying out the CAMC works in one month]				
35.1	1st Year	12	Job		
35.2	2nd Year	12	Job		
35.3	3rd Year	12	Job		
35.4	4th Year	12	Job		
35.5	5th Year	12	Job		
35.6	6th Year	12	Job		
35.7	7th Year	12	Job		
	L1 criteria will be decided on the basis of rates quoted from item no.1 to 35. However, S/I/T/C works will be executed on the basis of rates quoted from item no.1 to 34.				
	Grand Total Rs				

JE(T)

AEE(T) SS

E.E(Elect.)

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E , SS

E.E(E).

Indian Institute of Technology: Delhi

Pre-bid queries and their replies/response for N.I.T. No. 9471/79/EW/IITD/2018-19

S. No.	Name of the Firm	Page	Clasue No.	Clause Name	Query Raised	Response
1	NETIP	41	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications.
2	NETIP	41	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
3	NETIP	41	G	Min. Pixels 2304×1296	Given resolution is of 2.98 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
4	NETIP	42	B	CMOS 4 x 1/3" CMOS Sensor or better	Our multisensor camera comes with only 4x1/3.2 inch sensor so request you to kindly consider the same.	Accepted with condition that smaller sensor does not compromise the quality.
5	NETIP	42	D	Frame Rate 25fps or better	We are offering 12MP multisensor camera which gives 9MP@15FPS and support upto 30 FPS at lowest resolution so request you to kindly consider the same.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
6	NETIP	42	G	Lens 3mm/5mm fixed lens	Our 360 Multisensor camera comes with 2.7 mm lens which will give wider field of view so kindly consider the same.	Accepted as the total field of view required is 180 degree.

Indian Institute of Technology: Delhi

Pre-bid queries and their replies/response for N.I.T. No. 9471/79/EW/IITD/2018-19

S. No.	Name of the Firm	Page	Clause No.	Clause Name	Query Raised	Response
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2	NETIP	41	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
3	NETIP	41	G	Min. Pixels 2304×1296	Given resolution is of 2.98 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
4	NETIP	42	B	CMOS 4 x 1/3" CMOS Sensor or better	Our multisensor camera comes with only 4x1/3.2 inch sensor so request you to kindly consider the same.	Accepted with condition that smaller sensor does not compromise the quality.
5	NETIP	42	D	Frame Rate 25fps or better	We are offering 12MP multisensor camera which gives 9MP@15FPS and support upto 30 FPS at lowest resolution so request you to kindly consider the same.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
6	NETIP	42	G	Lens 3mm/5mm fixed lens	Our 360 Multisensor camera comes with 2.7 mm lens which will give wider field of view so kindly consider the same.	Accepted as the total field of view required is 180 degree.

7	NETIP	42	K	IR Illumination Internal or External required	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
8	NETIP	42	I	IR Range 30m	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
9	NETIP	42	P	Alarm Input 2 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
10	NETIP	43	U	Environmental Protection IP 67	For outdoor camera installation on poles and ceilings IP66 is more than enough so request you to kindly accept the IP 66 here.	Accpeted To be read as IP66/67

11	NETIP	44	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications.
12	NETIP	44	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
13	NETIP	44	G	Min. Pixels 1920x1080	Given resolution is of 2 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
14	NETIP	46	P	IR Range 200m	Our camera comes with 150 mtr integrated IR so request you to kindly consider the same.	The bidder can quote 150 m or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.
15	NETIP	46	T	Alarm Input 5 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
16	NETIP	46	W	PoE Required	Being a PTZ camera a lot of movement of pan, tilt & zoom is involved so to smoothly run on that our minimum camera need HPOE and it also supports 24 VAC and 48 VDC so kindly consider the same.	Accepted

17	NETIP	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage. Please quote as per RFP.
18	NETIP	40	CCTV Approved Makes	On CCTV part approved make is Honeywell, Axis, Pelco, Bosch and Sony.	As per the rule of CPWD, PWD and IWD the Brand incorporate in the tender should AT PAR and the prices with in 10% of variation. But the Honeywell brand is not AT PAR nighter on the Technically nor price wise. So request you make it AT PAR tender and the Brand should be Axis, Pelco, Bosch, Sony & Mobitix.	No change/modification accepted.
19	NETIP	40	OFC PIGTAIL & OFC PATCHCORD.	OFC Patch PIGTEL Approved Makes D-LINK/Molex/APW/SYSTIMAX	Please incorporate Schneider as the brand is already have with IIT Kanpur/ IIT Delhi/ IIT Gandinagar/IIT Dhanbad/IIT BHU and so on.... So please Amend the approved list D-LINK/Molex/APW/SYSTIMAX/Schneider.	No change/modification accepted.
20	NETIP	40	12 PORT LIU BOX	12 port LIU BOX Approved Make: Cisco/D-Link/TP-Link.	As the cisco and tp-link are not manufacture 12 port LIU BOX. So please amend the approved list. D-LINK/Molex/APW/SYSTIMAX/Schneider.	Please quote as per revesed make and specifaions.
21	NETIP	40	S. No. 12	List of approved Makes	24 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 47 and under S. No. 12 under Schedule of Quantity (BoQ) at page 75 24 port Multi gigabit /SFP switch.	Please read under Item Description as "16 port SFP switch" and under Approved Makes as "Cisco C9500-16X"

22	NETIP	40	S. No. 13	List of approved Makes	12 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 48 and under S. No. 13 under Schedule of Quantity (BoQ) at page 76 12 port SFP switch.	This requirement is merged with the requirement of S. No. 12 under List of approved makes.
23	NETIP	40	S. No. 14	List of approved Makes	8 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 49 and under S. No. 14 under Schedule of Quantity (BoQ) at page 76 8 port PoE switch.	Please read as "8 port PoE switch"
24	NETIP	40	S. No. 14	List of approved Makes	8 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 49 and under S. No. 14 under Schedule of Quantity (BoQ) at page 76 WS-C2960L-8PS-LL.	Please read model as "WS-C2960L-8PS-LL"
25	NETIP	40	S. No. 15	List of approved Makes	24 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 24 port PoE switch.	Please read as "24 port PoE switch"
26	NETIP	40	S. No. 15	List of approved Makes	24 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 C9200L-24P-4G-E.	Please read model as "C9200L-24P-4G-E"
27	NETIP	40	S. No. 18	List of approved Makes	SFP module - Cisco, HP HP make SFPs may not be compatible with the Cisco models hence the same should be removed. SFP module - Cisco.	Accepted.

28	NETIP	47	7 Switch	24 port switch (1)	Switch should be 1RU with minimum 24 no. of Multi gigabits ports with min 2 x 10G SFP+ ports. Kindly clarify whether we require SFP ports or copper ports. If SFP ports are required then this specs needs to be changed. For SFP switch requirement, proposed model is C9500-16X	Please read "24 port switch (1)" as "16 port SFP Switch (1)" for which minimum 16 nos of SFP/SFP+ ports are required. Please find the attached minimum specification in Annexure R(1) for table 7, Switch. Please also refer Annexure R(2) for change applicable to S. No. 12 under Schedule of Quantity (BoQ) . C9500-16X
29	NETIP	48	7 Switch	12 port switch (2)	Switch should be 1RU with minimum 12 no. of Multi gigabits ports with min 2 x 10G SFP+ ports. Kindly clarify whether we require SFP ports or copper ports. If SFP ports are required then this specs needs to be changed. For SFP switch requirement, proposed model is C9500-16X.	This switch requirement i.e. 12 port switch (2) is clubbed with the 16 Port SFP switch, i.e. 16 port SFP Switch (1). Please refer Annexure R(1) for min specifications as well as Annexure R(2), which is incorporated in revised Schedule of Quantity (BoQ).
30	NETIP	49	7 Switch	8 port switch (2)	8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. Kindly clarify what additional 2 nos are.	Please read as "8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. of SFP uplink ports loaded with 2 nos. of SMF modules."
31	PELCO	41	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications

32	PELCO	41	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
33	PELCO	41	G	Min. Pixels 2304x1296	Given resolution is of 2.98 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
34	PELCO	42	B	CMOS 4 x 1/3" CMOS Sensor or better	Our multisensor camera comes with only 4x1/3.2 inch sensor so request you to kindly consider the same.	Accepted with condition that smaller sensor does not compromise the quality.
35	PELCO	42	D	Frame Rate 25fps or better	We are offering 12MP multisensor camera which gives 9MP@15FPS and support upto 30 FPS at lowest resolution so request you to kindly consider the same.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
36	PELCO	42	G	Lens 3mm/5mm fixed lens	Our 360 Multisensor camera comes with 2.7 mm lens which will give wider field of view so kindly consider the same.	Accepted as the total field of view required is 180 degree.
37	PELCO	42	K	IR Illumination Internal or External required	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be unifomly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.

38	PELCO	42	I	IR Range 30m	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
39	PELCO	42	P	Alarm Input 2 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
40	PELCO	43	U	Environmental Protection IP 67	For outdoor camera installation on poles and ceilings IP66 is more than enough so request you to kindly accept the IP 66 here.	Accepted To be read as IP66/67
41	PELCO	44	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications.
42	PELCO	44	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.

43	PELCO	44	G	Min. Pixels 1920x1080	Given resolution is of 2 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
44	PELCO	46	P	IR Range 200m	Our camera comes with 150 mtr integrated IR so request you to kindly consider the same.	The bidder can quote 150 Meter or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.
45	PELCO	46	T	Alarm Input 5 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
46	PELCO	46	W	PoE Required	Being a PTZ camera a lot of movement of pan, tilt & zoom is involved so to smoothly run on that our minimum camera need HPOE and it also supports 24 VAC and 48 VDC so kindly consider the same.	Accepted

47	PELCO	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage. Please quote as per RFP.
48	PELCO	40	CCTV Approved Makes	On CCTV part approved make is Honeywell, Axis, Pelco, Bosch and Sony.	As per Govt CPWD clause in any tender whenever departments consider 3-4 approved makes of tender that should be commercially viable in 10% clause but here out 4 makes Honeywell is not coming in that clause so request you to kindly amend the make as Axis/Pelco/Bosch/Sony	No change/modification accepted.
49	PELCO			General	As per gove tender guidelines, OEM should not be blacklisted in any govt/psu/central government or any govt related authority which will make tender more healthy.	No change/modification accepted.
50	NECO	40	List of approved Makes	24, 12, 8, 4 PORT SWITCH	As per the tender document you have specifically mentioned CISCO switches with Model No. also. We request you to please add different OEM's like HP/Allied Telesis/Juniper, so that the competition can be fair enough. They are reputed brands and are listed in Gartner. So please make the specifications neutral so that maximum OEM can participate.	No change/modification accepted.

51	NECO	62	DECLARATION	DECLARATION	Being a premier institute, we request you to kindly amend it and also add "OEM or its subsidiary companies should not be blacklisted in INDIA". So that only reputed proven OEM can participate.	No change/modification accepted.
52	NECO	60	7	Service Setup - The bidder must have local office or service setup in within 20 KMs of the Project location to meet the SLA's. (Copy of relevant proof be submitted)	We request you to kindly amend " bidder or subsidiary company must have local office or service setup in within 20 KMs of the Project location.	No change/modification accepted.
53	NECO	41 & 47	Technical Specifications Compliance Sheet	Technical specifications for camera: lens- As per tender specifications desired is 3mm/5mm fixed lens.	Our OEM pelco doesn't have this lenses in multisensor camera, they have 2.7mm/4.8mm lens. So kindly amend it as 2.7mm/4.8mm or better.	Already accepted please refer above.
54	NECO	42	K	IR Illumination Internal or External required	Our OEM don't have IR illumination in Multisensor camera. So kindly make it optional. Although multisensor camera doesn't require IR LED.	No change accepted Kindly quote with external IR Illuminators.
55	NECO	42	P	Alarm Input 2 nos. required	Our OEM doesn't have 2 alarm input. So kindly amend it as 1 or more alarm inputs. 1 alarm is sufficient for camera. As 2 alarms input is specific to one OEM.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
56	NECO	43	U	Environmental Protection IP 67	Our OEM multisensor camera comes with IP66 protection, which is sufficient for ingress protection as camera is not going to get submerged in water. So kindly make it as IP66.	Accpeted To be read as IP66/67
57	NECO	46	P	IR Range 200m	Our OEM comes with 150 mtr IR range of PTZ camera, which is quite enough for viewing. 200 mtr IR is specific to one OEM. So kindly amend it as 150 mtr or better.	The bidder can quote 150 Meter or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.

58	NECO	46	T	Alarm Input 5 nos. required	Kindly amend alarm inputs as 2 or more. As 2 alarms input is sufficient for PTZ camera. 5 alarm input is specific to one OEM. Do kindly amend it as 2 or more.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
59	NECO	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage.
60	TNS	40	1	DOME CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
61	TNS	40	2	Multi Sensor Camera - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
62	TNS	40	3	OUTDOOR BOX CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
63	TNS	40	4	BULLET TYPE FIXED CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
64	TNS	40	8	PTZ JOYSTICK - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
65	CP PLUS	40	1	DOME CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.

66	CP PLUS	40	2	Multi Sensor Camera - Honeywell, Axis, Pelco, Bosch & Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
67	CP PLUS	40	3	OUTDOOR BOX CAMERA - Honeywell, Axis, Pelco, Bosch & Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
68	CP PLUS	40	4	BULLET TYPE FIXED CAMERA - Honeywell, Axis, Pelco, Bosch & Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
69	CP PLUS	40	8	PTZ JOYSTICK - Honeywell, Axis, Pelco, Bosch & Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
70	TECH SIS Li	11	Bidders Eligibility Criteria. Point 12	Firms/Contractors should have satisfactorily completed one similar work of value not less than Rs. 3,85,93,683/- or two similar works each of value not less than Rs. 2,89,45,262/ or three similar works each of value not less than Rs. 1,92,96,841/-during last 7 years ending previous day of last date of submission of bids. Similar work mean: Supply, installation, testing and commissioning of CCTV work	Refer to this clause please give the chance to those bidders also meeting the criteria of order value under a single contract of sale/Service/Maintenance part . As per the tender document page no. have also mentioned "L1 criteria will be decided on the basis of rate from item no.1 to 36. that includes AMC also "So, if we are referring this clause, then for this work IIT must also consider the eligibility of bidder in both SITC + Service & Maintenance part after the complete work.	No change/modification accepted. Please quote as per RFP.
71	TECH SIS Li	12	point 18/g	Seamless connectivity compliance with existing CCTV systems of IIT Delhi duly ink signed and vetted by OEM is not submitted .	Please confirm the scope of seamless connectivity & provide the detail existing CCTV set up the corrigendum . If IIT allows, the bidder must conduct the survey at site & collecting the detail the existing CCTV service has to be certified by IIT team before the bid submission.	In the IIT campus already installed the IP cameras of Honeywell Onvif Cameras.

72	TECH SIS Li	11	point 13	The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of financial bid.	Please clarify this how IIT will doing the evaluation for this.	Please read the tender document clearly, it is very clearly mentioned in the clause.
73	TECH SIS Li	74	Video Management Software. Point 7	Supply, Installation, Testing & Commissioning of Video Management Software for 300 Cameras - 1 lot	In the financial BOQ you have asked the VMS software supporting --- cameras license. But please also clarify if the camera quantity will be subjected to the addition of existing CCTV cameras then where bid quote this per camera license cost	Please quote as per requirement asked.
74	TECH SIS Li	73	Server Point 6	Supply, Installation, Testing & Commissioning of Video Management Server	Pls clarify that the specs given for the Server can handle the all cameras above then the asked quantity of 300 nos in the tender , if integration of existing cameras , also pls specify the camera handling of the server .	Server is capable please consider the future expansion in your commercials.
75	TECH SIS Li	40	Video Management Software. Point 7	Videonetics, Mirasys, Milestone, Honeywell, Bosch, Pelco, Axis & Sony.	Please approve the make 12V as an VMS & VA OEM in list of makes it is already empanelled in IIT Kanpur , IIT Patna & its an reputed OEM in India Product	No change/modification accepted.
76	M/s Tyco S	40	Approved makes	List of approved makes	Kindly add our brand "TYCO" in the approved makes list	No change/modification accepted.
77	M/s Tyco S	41	z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (1)	As per Industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates. Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted.
78	M/s Tyco S	42	b. CMOS: 4 x 1/3" Cmos Sensor or better	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technical Multisensor Camera creates security threats in Producing evidence and not recommended legally while single lens camera is always preferred to avoid any security gap, Multi Sensor cameras are limited to few OEMs kindly change this to single lens camera to allow Maximum OEM participation and achieving higher security surveillance	No change/modification accepted.

79	M/s Tyco S	42	d. Frame rate : 25fps or better	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It is the technical limitation to have full real time frames for high resolution cameras ,Kindly change this to 15 fps or better which follows industry standart ,25fps it limited to some OEMs kindly make the necessary changes to allow maximum OEM participation.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
80	M/s Tyco S	42	e. Minimum illumination (Colour) :0.01lux	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Kindle change the illumination to 0.2x to allow maximum OEM participation.	No change/modification accepted.
81	M/s Tyco S	42	g. Lens : 3mm/5mm fixed lens	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It should be limited to specific Lense range to restrict the participation from number of OEMs,kindly allow the lens option as 1.3/1.5/2.8/3/5 mm for better option and results	Already accepted for multisensor cameras.
82	M/s Tyco S	42	k. IR Illumination : Internal or External required	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technically Built in Intergated IR is always considered the best option for better result however external IR creates lots of issues wrt to synchronization and proper lux level to all the directions,Kindly change this to Built in IR only.	No change/modification accepted.
83	M/s Tyco S	42	l. IR Range :30	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	IR Range 30 meter with fishseye camera is limited to few organization .kindly change this to 10-15 Mtr Built in IR which follows industry standard and allowing maximum OEM partiapiation.	No change/modification accepted.
84	M/s Tyco S	42	O. SD card support : upto 128GB	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Given value is limited the participation here ,Technically SD card storage only comes in picture incase of network failure which can easily be handled through 64GB space ,kindly change this to 64GB	No change/modification accepted.

85	M/s Tyco S	42	P. Alarm input : 2nos	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technically 1 Nos input and output is sufficient to make dry integration ,2Nos is restricting the participation from maximum OEMs,kindly change this to 1 Nos input which follows industry standard	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
86	M/s Tyco S	43	T. Power : 12VDC , 24VAC, POE+	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	As per industry standard 12VDC ,POE option are preferred and AC voltage is used to power up PTZ and other high power cameras,Kindly change this to 12VDC,POE	Already Accepted
87	M/s Tyco S	43	U. Enviroment protection : IP67	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It is limiting to few OEM participation ,technically for out door Protection of cameras IP66 is ok enough to solve the purpose here ,kindly change this to IP66	Already Accepted
88	M/s Tyco S	43	Y. Certification UL, CE, EN, FCC Part 15, RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
89	M/s Tyco S	43	Box/Bullet Camera (3)	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	Now these days better to go with Bullet cameras which will be a bundled package of housing Bracket , lens and Intergated IR ,Box camera will additionally require all the accessories and IR illuminator could not be the best solution if we consider with Bullet ,Kindly change this to bullet Camera	No change/modification accepted
90	M/s Tyco S	43	I. Lens : 5-50mm	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	As per Indusrty standard Bullet cameras are available with 2.8-12mm lens to achive the better results instead box Camera ,5-50 mm lens would only be available with box Camera or will be limited to specific OEM if available in Bullet camera ,kindly change this to 2.8-12mm for maximum OEM particiaption.	No change/modification accepted

91	M/s Tyco S	44	Z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
92	M/s Tyco S	44	Box/Bullet Camera (4)	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (4)	Now these days better to go with Bullet cameras which will be a bundled package of housing Bracket , lens and Intergated IR ,Box camera will additionally require all the accessories and IR illuminator could not be the best solution if we consider with Bullet ,Kindly change this to bullet Camera	No change/modification accepted
93	M/s Tyco S	45	z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (4)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
94	M/s Tyco S	46	O. IR Illumination : Internal or External required	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/PTZ Camera (5)	Technically Built in Intergated IR is always considered the best option for better result however external IR creats lots of issues wrt to synchronization and proper lux level to all the directions as this is PTZ Camera will move to all the direction , Kindly change this to Built in IR only and remove the external Option.	No change/modification accepted
95	M/s Tyco S	46	P. IR Range : 200m	List of approved Makes	24 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 C9200L-24P-4G-E.	Please read model as "C9200L-24P- 4G-E"

96	HIKVISION	41	i.IR: 3 nos. high power	Annexure- A Dome Camera (1)	Ir range is important in the cameras instead of IR LED , as IR Range has already been mentioned in the technical specifications, requesting to remove this clause.	As per observation of committee, IR LEDs & IR distance plays a vital role in giving clarity during night. Change in parameters of IR will compromise with the core and fundamental need of Institute. Minimum number of high power IR LED has been mentioned Bidder can quote with higher number of High Power IR LED's
97	HIKVISION	41	s.Compression : H.264 & MJPEG	Annexure- A Dome Camera (1)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting you to amend the clause to compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesn't support H.265 compression. H.265 compression should be available in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation
98	HIKVISION	43	r.Compression : H.264 & MJPEG	Annexure- A Multi Sensor Camera (2)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting you to amend the clause to compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesn't support H.265 compression. H.265 compression should be available in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation

99	HIKVISION	43	I.IR LED: 3xnos. Or higher high power LED	Annexure- A Box/Bullet Camera (3)	IR range is imporatant in the cameras instaed of IR LED , as IR Range has already been mentioned in the technical specifications, requesting to remove this clause.	Replied above
100	HIKVISION	44	s.Compressi on : H.264 & MJPEG	Annexure- A Box/Bullet Camera (3)	H.264 is the old video compression technology, whereas, H2.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to ammend the causeto compression : H.265, H.264 & MJPEG	Replied above
101	HIKVISION	45	s.Compressi on : H.264 & MJPEG	Annexure- A Box/Bullet Camera (4)	H.264 is the old video compression technology, whereas, H2.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to ammend the causeto compression : H.265, H.264 & MJPEG	Replied above

102	HIKVISION	46	p.IR Range: 200 m	Annexure- A PTZ Camera (5)	As 30X optical camera has been proposed in the tender, the standard IR Range for 30X PTZ camera is recommended to have of 150m IR Range, Thus, requesting to ammend the clause to IR Range: 150m	As per internal assessment of the requirement of the institute, the campus is huge and coverage of maximum possible area has to be done. Compromise with core and fundamental need of institure's security requirment cannot be done. The bidder can use external IR Illuminator to provide coverage of PTZ during night in pitch dark condition.(IR range 150 Meter or better is accepted)
103	HIKVISION	46	t.Alarm Input: 5 nos required	Annexure- A PTZ Camera (5)	It is recommended to have 2 Alarm input in the PTZ camera at it is suffiecient and will provide an economic solution, Thus requesting to ammend the clause to Alarm input : 2 nos. required	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch.
104	HIKVISION	46	u.Alarm Output: 2 nos. required	Annexure- A PTZ Camera (5)	It is recommended to have 1 Alarm Outputt in the PTZ camera at it is suffiecient and will provide an economic solution, Thus requesting to ammend the clause to Alarm Output : 1 nos. required	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch.
105	HIKVISION	46	v.Compressio n: H.264 & MJPEG	Annexure- A PTZ Camera (5)	H.264 is the old video compression technology, whereas, H2.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to ammend the causeto compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesnt support H.265 compression. H.265 compression should be avaiable in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation

106	HIKVISION	61	3+7 year spare part support from OEM	Page no. 61/commercial compliance Sheet/Point 12	in a rapidly changing scenarios of this era, it is not possible to suply spares for up to 10 years. Production technology and terminologies are changing everyday. Please change it upto 7 years, 3+4 years.	No change/modification accepted.
107	HIKVISION	61	OEM Presentatation for last 15 year	Page no. 61/commercial compliance Sheet/Point 12	No big OEM or very few were supplying CCTV before 15 years in india. It will narrow the OEM selection. Hence request you to change it to 7-8 years presence in the country to give a fair opportunity to all tha major suppliers in the country and worldwide.	Ten years presence in the country is accepted.
108	HIKVISION	61	Seamless intergration with existing CCTV system	Page no. 61/commercial compliance Sheet/Point 14	What is OEM, model and quantity of installed system? What kind of intergration we want with new proposed system?	In the IIT campus already installed the IP cameras of Honeywell Onvif Cameras.
109	HIKVISION	61	POC schedule	Page no. 61/commercial compliance Sheet/Point 16	what would be the PoC date?	Shall be informed
110	HIKVISION	40	Brand inclusion in CCTV Makes	Honeywell, Axis, Pelco, Bosch& Sony.	Request you to include HIKVISION brand also	As per RFP/No change accepted

111	Sparsh	40	List of approved Makes	<p>1. DOME CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>2. Multi Sensor Camera -: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>3. OUTDOOR BOX CAMERA: Honeywell, Axis, Pelco, BOSch & Sony</p> <p>4. BULLET TYPE FIXED CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>5. PTZ CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>8. PTZ JOYSTICK - Approved : Honeywell, Axis, Pelco, Bosch & Sony</p>	<p>Restrictive Clause for domestic manufactures, Kindly empanel SPARSH brand in approved brand list and give us an equal opportunity to participate in the tender or remove all the brands. As justified above please refer GFR 2017 Rule 144 Clause 1(b). State that: "not Indicate a requirement for a particular trade mark, trade name or brand". Please add SPARSH brand in the approved Makes or Remove all the Brand</p>	<p>Committee had done exhaustive study on selection of brands. Already 5 nos. of makes have been approved. We cannot take request of further brand addition. Bidder is requested to quote from approved make list.</p> <p>As per GFR 2017, Rule 144 Clause (i) "The description of the subject matter of procurement to the extent practicable ". Since this is not a general procurement, but a tender for SITC with AMC for security systems for campus it's not possible to add any further make. Also the cameras should be seamlessly integrated with the existing system.</p>
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112	Sparsh	3, 44,4	Annexure-A Specification on of NVR Dome Camera Multi Sensor Camera Box/Bullet Camere PTZ Camera	Z. Certification: UL, CE, EN, FCC, Rohs	<p>· UL, EN and IS (Indian Standard) are equivalent safety standard, all of them being derived from IEC (International Electro-technical Commission), who prepare and publish international standards for Electrical and Electronics Equipment.</p> <p>· Due to security reasons, Ministry of Electronics and information Technology (Meity) has notified a Compulsory Registration Order (CRO) for electronic Equipment. CCTV Camera and Recorders have been covered under this order from 23rd May' 2018 and the Indian standard, i.e IS 13252- part1 has been made mandatory for CCTV Camera and CCTV Recorders . BIS has adopted IS 13252-1 as the Indian Standard .</p> <p>· The equivalence of UL, EN, IS and IEC is also clearly mentioned in the letter from joint Secretary, DietY to joint Secretary MHA.</p> <p>Dot's public procurement (Preference to Make in India) Order 2017 states on page 3, point 10: "For any telecom product, service and work as in table-A, the procuring entity should not specify to bidder mandatory qualify any foreign eligibility specification(s) issued by any foreign testing/security lab(s)."</p> <p>· Therefore; BIS shall be the only certification asked for CCTV Cameras and Recorders. Requesting you to accept : CE, FCC, RoHS & BIS Certificate or CE, FCC, RoHS & BIS/UL/EN.</p>	<p>All supplier to quote cameras as per certifications mentioned in RFP and all products shall bear the IS/BIS Mark which shall be inspected upon delivery.</p>
113	Sparsh		Annexure-A Specification of NVR Multi Sensor Camera	p. Alarm Input: 1 nos. required q. Alarm Output 1 nos. required	<p>Technical specification is over specked. It will increase the product cost .</p> <p>1 Alarm input and 1 Alarm output is sufficient to fulfil the functional requirement of RFP because all the fixed cameras are with 1 Alarm input and 1 Alarm output .</p> <p>requesting you to accept : 1 Alarm input 1 Alarm output</p>	As Per RFP

114	Sparsh	45	Annexure-A Specification of NVR PTZ Camera	t. Alarm input : 5 nos. required u. Alarm output : 2 nos required	Technical specification is over specked. It will increase the product cost . 2 Alarm input and 1 Alarm output is sufficient to fulfil the functional requirement of RFP because asked alarm Input/Output will increase the product cost . requesting you to accept : 2 Alarm input 1 Alarm output	As Per RFP
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115 Minimum Period required for storage of CCTV Data. --- Ninety Days

Annexure R(1)

7. Switch

S. No.	16 Port SFP Switch (1)	Compliance (Only Yes/No)	Deviation if any should be clearly mentioned
1	Switch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port		
2	Should have 16 GB RAM and 16 GB Flash		
3	Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate.		
4	Switch should have hot swappable 1:1 redundant internal power supply.		
5	Switching system shall have minimum 32K MAC Addresses and 4K Vlans.		
6	Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes..		
7	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.		
8	Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing.		
9	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.		
10	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.		
11	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.		
12	IPv6 support in hardware, providing wire rate forwarding for IPv6 network		
13	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.		
14	Eight egress queues per port for different types.		
15	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.		
16	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.		
17	Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards		
18	Switch shall have EAL3/NDPP certified from Day 1		

Annexure R[2]

SCHEDULE OF QUANTITY

[BOQ] Annexure R(2)

S. No.	Item Description	Qty.	Unit	Unit Rate	Total
12	16 PORT SFP SWITCH - Supply, Installation, Testing & Commissioning of 16 Port SFP Switch	3	Nos.		
	Switch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port				
	Should have 16 GB RAM and 16 GB Flash				
	Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate.				
	Switch should have hot swappable 1:1 redundant internal power supply.				
	Switching system shall have minimum 32K MAC Addresses and 4K Vlans.				
	Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes..				
	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.				
	Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing.				
	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.				
	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.				
	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.				
	IPv6 support in hardware, providing wire rate forwarding for IPv6 network				
	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.				
	Eight egress queues per port for different types.				
	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.				
	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.				
Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards					
Switch shall have EAL3/NDPP certified from Day 1					

SCHEDULE OF QUANTITY

[BOQ] Annexure R(2)

S. No.	Item Description	Qty.	Unit	Unit Rate	Total
12	16 PORT SFP SWITCH - Supply, Installation, Testing & Commissioning of 16 Port SFP Switch	3	Nos.		
	Switch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port				
	Should have 16 GB RAM and 16 GB Flash				
	Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate.				
	Switch should have hot swappable 1:1 redundant internal power supply.				
	Switching system shall have minimum 32K MAC Addresses and 4K Vlans.				
	Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes..				
	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.				
	Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing.				
	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.				
	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.				
	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.				
	IPv6 support in hardware, providing wire rate forwarding for IPv6 network				
	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.				
	Eight egress queues per port for different types.				
	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.				
Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.					
Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards					
Switch shall have EAL3/NDPP certified from Day 1					

7. Switch

S. No.	16 Port SFP Switch (1)	Compliance (Only Yes/No)	Deviation if any should be clearly mentioned
1	Switch should have minimum 16 no. of SFP/SFP+ port from Day1 upgradable to additional 8x10G SFP+ port or 2 nos. of 40G QSFP port		
2	Should have 16 GB RAM and 16 GB Flash		
3	Switching system shall have minimum 480 Gbps of switching fabric and minimum 360 Mpps of forwarding rate.		
4	Switch should have hot swappable 1:1 redundant internal power supply.		
5	Switching system shall have minimum 32K MAC Addresses and 4K Vlans.		
6	Switch should support minimum 18K ACLs, 16K Multicast and 32K IPv4, 16K IPv6 Routes..		
7	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1ae (256-bit and 128-bit AES), 802.3x, 802.1p, 802.1Q.		
8	Should have static routing, OSPF, OSPFv3, BGP, VRRP, VRF (Virtual routing and forwarding), IGMP v1/v2/v3, PIM and multicast routing.		
9	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.		
10	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP, Netconf/YANG.		
11	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.		
12	IPv6 support in hardware, providing wire rate forwarding for IPv6 network		
13	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.		
14	Eight egress queues per port for different types.		
15	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.		
16	Switch shall support application visibility and traffic monitoring with minimum 60 K sflow/jflow/netFlow entries.		
17	Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards		
18	Switch shall have EAL3/NDPP certified from Day 1		

7	NETIP	42	K	IR Illumination Internal or External required	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
8	NETIP	42	I	IR Range 30m	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
9	NETIP	42	P	Alarm Input 2 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
10	NETIP	43	U	Environmental Protection IP 67	For outdoor camera installation on poles and ceilings IP66 is more than enough so request you to kindly accept the IP 66 here.	Accpeted To be read as IP66/67

11	NETIP	44	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications.
12	NETIP	44	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
13	NETIP	44	G	Min. Pixels 1920x1080	Given resolution is of 2 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
14	NETIP	46	P	IR Range 200m	Our camera comes with 150 mtr integrated IR so request you to kindly consider the same.	The bidder can quote 150 m or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.
15	NETIP	46	T	Alarm Input 5 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
16	NETIP	46	W	PoE Required	Being a PTZ camera a lot of movement of pan, tilt & zoom is involved so to smoothly run on that our minimum camera need HPOE and it also supports 24 VAC and 48 VDC so kindly consider the same.	Accepted

17	NETIP	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage. Please quote as per RFP.
18	NETIP	40	CCTV Approved Makes	On CCTV part approved make is Honeywell, Axis, Pelco, Bosch and Sony.	As per the rule of CPWD, PWD and IWD the Brand incorporate in the tender should AT PAR and the prices with in 10% of variation. But the Honeywell brand is not AT PAR nighter on the Technically nor price wise. So request you make it AT PAR tender and the Brand should be Axis, Pelco, Bosch, Sony & Mobitix.	No change/modification accepted.
19	NETIP	40	OFC PIGTAIL & OFC PATCHCORD.	OFC Patch PIGTEL Approved Makes D-LINK/Molex/APW/SYSTIMAX	Please incorporate Schneider as the brand is already have with IIT Kanpur/ IIT Delhi/ IIT Gandinagar/IIT Dhanbad/IIT BHU and so on.... So please Amend the approved list D-LINK/Molex/APW/SYSTIMAX/Schneider.	No change/modification accepted.
20	NETIP	40	12 PORT LIU BOX	12 port LIU BOX Approved Make: Cisco/D-Link/TP-Link.	As the cisco and tp-link are not manufacture 12 port LIU BOX. So please amend the approved list. D-LINK/Molex/APW/SYSTIMAX/Schneider.	Please quote as per revesed make and specifaions.
21	NETIP	40	S. No. 12	List of approved Makes	24 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 47 and under S. No. 12 under Schedule of Quantity (BoQ) at page 75 24 port Multi gigabit /SFP switch.	Please read under Item Description as "16 port SFP switch" and under Approved Makes as "Cisco C9500-16X"

22	NETIP	40	S. No. 13	List of approved Makes	12 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 48 and under S. No. 13 under Schedule of Quantity (BoQ) at page 76 12 port SFP switch.	This requirement is merged with the requirement of S. No. 12 under List of approved makes.
23	NETIP	40	S. No. 14	List of approved Makes	8 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 49 and under S. No. 14 under Schedule of Quantity (BoQ) at page 76 8 port PoE switch.	Please read as "8 port PoE switch"
24	NETIP	40	S. No. 14	List of approved Makes	8 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 49 and under S. No. 14 under Schedule of Quantity (BoQ) at page 76 WS-C2960L-8PS-LL.	Please read model as "WS-C2960L-8PS-LL"
25	NETIP	40	S. No. 15	List of approved Makes	24 port switch Kindly mention switch type which should match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 24 port PoE switch.	Please read as "24 port PoE switch"
26	NETIP	40	S. No. 15	List of approved Makes	24 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 C9200L-24P-4G-E.	Please read model as "C9200L-24P-4G-E"
27	NETIP	40	S. No. 18	List of approved Makes	SFP module - Cisco, HP HP make SFPs may not be compatible with the Cisco models hence the same should be removed. SFP module - Cisco.	Accepted.

28	NETIP	47	7 Switch	24 port switch (1)	Switch should be 1RU with minimum 24 no. of Multi gigabits ports with min 2 x 10G SFP+ ports. Kindly clarify whether we require SFP ports or copper ports. If SFP ports are required then this specs needs to be changed. For SFP switch requirement, proposed model is C9500-16X	Please read "24 port switch (1)" as "16 port SFP Switch (1)" for which minimum 16 nos of SFP/SFP+ ports are required. Please find the attached minimum specification in Annexure R(1) for table 7, Switch. Please also refer Annexure R(2) for change applicable to S. No. 12 under Schedule of Quantity (BoQ) . C9500-16X
29	NETIP	48	7 Switch	12 port switch (2)	Switch should be 1RU with minimum 12 no. of Multi gigabits ports with min 2 x 10G SFP+ ports. Kindly clarify whether we require SFP ports or copper ports. If SFP ports are required then this specs needs to be changed. For SFP switch requirement, proposed model is C9500-16X.	This switch requirement i.e. 12 port switch (2) is clubbed with the 16 Port SFP switch, i.e. 16 port SFP Switch (1). Please refer Annexure R(1) for min specifications as well as Annexure R(2), which is incorporated in revised Schedule of Quantity (BoQ).
30	NETIP	49	7 Switch	8 port switch (2)	8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. Kindly clarify what additional 2 nos are.	Please read as "8 Port managed PoE Switch with 2 SFP port, minimum 8 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 60W of PoE Power and additional 2 nos. of SFP uplink ports loaded with 2 nos. of SMF modules."
31	PELCO	41	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications

32	PELCO	41	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.
33	PELCO	41	G	Min. Pixels 2304x1296	Given resolution is of 2.98 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
34	PELCO	42	B	CMOS 4 x 1/3" CMOS Sensor or better	Our multisensor camera comes with only 4x1/3.2 inch sensor so request you to kindly consider the same.	Accepted with condition that smaller sensor does not compromise the quality.
35	PELCO	42	D	Frame Rate 25fps or better	We are offering 12MP multisensor camera which gives 9MP@15FPS and support upto 30 FPS at lowest resolution so request you to kindly consider the same.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
36	PELCO	42	G	Lens 3mm/5mm fixed lens	Our 360 Multisensor camera comes with 2.7 mm lens which will give wider field of view so kindly consider the same.	Accepted as the total field of view required is 180 degree.
37	PELCO	42	K	IR Illumination Internal or External required	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not succesfully implemented as IR in 360 degree will not going to be unifomly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.

38	PELCO	42	I	IR Range 30m	Our 360 Multisensor camera comes with very low light lux which will give you clear picture even at very low light and being multi-sensor camera new technology IR is not successfully implemented as IR in 360 degree will not going to be uniformly distributed. So, request you to kindly accept the same. For external IR, SI have to attached 4 IR with each camera which will aesthetically will not look good on dome camera also solution will not be commercial viable which will give clearly advantage to Honeywell so request you to kindly accept the same.	No change accepted Kindly quote with external IR Illuminators.
39	PELCO	42	P	Alarm Input 2 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
40	PELCO	43	U	Environmental Protection IP 67	For outdoor camera installation on poles and ceilings IP66 is more than enough so request you to kindly accept the IP 66 here.	Accpeted To be read as IP66/67
41	PELCO	44	C	Resolution - 4MP or better	4MP is not industry standard. Out of 4 approved makes only Honeywell is available with this resolution so Honeywell is clearly at advantage so request you to be more generic tender and either 2MP/3MP Resolution or 5MP resolution which is more like industry standards. So kindly amend 2 MP or 5MP.	Accepted, bidder may quote for 3MP or better resolution as per revised BOQ and specifications.
42	PELCO	44	D	Frame Rate Configuration 4MP @20fps, 3MP/2MP @ 25fps or better	As per industry there is only 2 standards i.e. NTSC and PAL, one says 30 fps and other one says 25 fps. We here in india use 25 fps. You have asked 4 MP@ 20 fps which is not generic and quite OEM specific so request you to kindly amend to 25 fps at full resolution.	Accepted, 3MP @ 25fps or better as per revised BOQ and specifications.

43	PELCO	44	G	Min. Pixels 1920x1080	Given resolution is of 2 Megapixel and you have asked 4 MP resolution so both the statements are contradicting. Resolution should always be equal to pixels size. So kindly amend 2 MP or better.	A typographical error was observed during the publishing of tender. To be read as per revised specifications - 2304x 1303 p or better.
44	PELCO	46	P	IR Range 200m	Our camera comes with 150 mtr integrated IR so request you to kindly consider the same.	The bidder can quote 150 Meter or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.
45	PELCO	46	T	Alarm Input 5 nos. required	As per industry standards 1 alarm input and 1 alarm output is available request you to kindly accept the same.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
46	PELCO	46	W	PoE Required	Being a PTZ camera a lot of movement of pan, tilt & zoom is involved so to smoothly run on that our minimum camera need HPOE and it also supports 24 VAC and 48 VDC so kindly consider the same.	Accepted

47	PELCO	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage. Please quote as per RFP.
48	PELCO	40	CCTV Approved Makes	On CCTV part approved make is Honeywell, Axis, Pelco, Bosch and Sony.	As per Govt CPWD clause in any tender whenever departments consider 3-4 approved makes of tender that should be commercially viable in 10% clause but here out 4 makes Honeywell is not coming in that clause so request you to kindly amend the make as Axis/Pelco/Bosch/Sony	No change/modification accepted.
49	PELCO			General	As per gove tender guidelines, OEM should not be blacklisted in any govt/psu/central government or any govt related authority which will make tender more healthy.	No change/modification accepted.
50	NECO	40	List of approved Makes	24, 12, 8, 4 PORT SWITCH	As per the tender document you have specifically mentioned CISCO switches with Model No. also. We request you to please add different OEM's like HP/Allied Telesis/Juniper, so that the competition can be fair enough. They are reputed brands and are listed in Gartner. So please make the specifications neutral so that maximum OEM can participate.	No change/modification accepted.

51	NECO	62	DECLARATION	DECLARATION	Being a premier institute, we request you to kindly amend it and also add "OEM or its subsidiary companies should not be blacklisted in INDIA". So that only reputed proven OEM can participate.	No change/modification accepted.
52	NECO	60	7	Service Setup - The bidder must have local office or service setup in within 20 KMs of the Project location to meet the SLA's. (Copy of relevant proof be submitted)	We request you to kindly amend " bidder or subsidiary company must have local office or service setup in within 20 KMs of the Project location.	No change/modification accepted.
53	NECO	41 & 42	Technical Specifications Compliance Sheet	Technical specifications for camera: lens- As per tender specifications desired is 3mm/5mm fixed lens.	Our OEM pelco doesn't have this lenses in multisensor camera, they have 2.7mm/4.8mm lens. So kindly amend it as 2.7mm/4.8mm or better.	Already accepted please refer above.
54	NECO	42	K	IR Illumination Internal or External required	Our OEM don't have IR illumination in Multisensor camera. So kindly make it optional. Although multisensor camera doesn't require IR LED.	No change accepted Kindly quote with external IR Illuminators.
55	NECO	42	P	Alarm Input 2 nos. required	Our OEM doesn't have 2 alarm input. So kindly amend it as 1 or more alarm inputs. 1 alarm is sufficient for camera. As 2 alarms input is specific to one OEM.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
56	NECO	43	U	Environmental Protection IP 67	Our OEM multisensor camera comes with IP66 protection, which is sufficient for ingress protection as camera is not going to get submerged in water. So kindly make it as IP66.	Accpeted To be read as IP66/67
57	NECO	46	P	IR Range 200m	Our OEM comes with 150 mtr IR range of PTZ camera, which is quite enough for viewing. 200 mtr IR is specific to one OEM. So kindly amend it as 150 mtr or better.	The bidder can quote 150 Meter or better integrated IR Illuminator to provide coverage of PTZ during night in pitch dark condition. Kindly quote as per RFP.

58	NECO	46	T	Alarm Input 5 nos. required	Kindly amend alarm inputs as 2 or more. As 2 alarms input is sufficient for PTZ camera. 5 alarm input is specific to one OEM. Do kindly amend it as 2 or more.	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
59	NECO	57	5.44	Video Stitching - The VMS should provide the ability for real time video calibration tools providing stitched video view of areas that are covered by multiple cameras as a single image. The video stitching software module should provide the ability to "stitch" / integrate up to eight (8) cameras in any direction, horizontal, vertical and overlay to provide a single overlaid view of the selected cameras. It should also be possible to record such stitched view as one single video file for later retrieval.	As per video surveillance standards video stitching/morphing or any alternation to video is not allowed. So request you to remove this point.	The video stitching feature is intended to show multiple camera views as one single view on the screen and also as one single view of stitched videos for exporting and investigation purposes. Also the feature is important from displaying of multi-sensor cameras for viewing and for exporting. The VMS should not alter the original recording of the individual cameras in the main storage.
60	TNS	40	1	DOME CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
61	TNS	40	2	Multi Sensor Camera - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
62	TNS	40	3	OUTDOOR BOX CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
63	TNS	40	4	BULLET TYPE FIXED CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
64	TNS	40	8	PTZ JOYSTICK - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add VIVOTEK in approved make".	No change/modification accepted.
65	CP PLUS	40	1	DOME CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.

66	CP PLUS	40	2	Multi Sensor Camera - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
67	CP PLUS	40	3	OUTDOOR BOX CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
68	CP PLUS	40	4	BULLET TYPE FIXED CAMERA - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
69	CP PLUS	40	8	PTZ JOYSTICK - Honeywell, Axis, Pelco, Bosch& Sony.	Request you to " add CP PLUS in approved make".	No change/modification accepted.
70	TECH SIS Li	11	Bidders Eligibility Criteria. Point 12	Firms/Contractors should have satisfactorily completed one similar work of value not less than Rs, 3,85,93,683/- or two similar works each of value not less than Rs. 2,89,45,262/ or three similar works each of value not less than Rs. 1,92,96,841/-during last 7 years ending previous day of last date of submission of bids. Similar work mean: Supply, installation, testing and commissioning of CCTV work	Refer to this clause please give the chance to those bidders also meeting the criteria of order value under a singal contract of sale/Service/Maintainence part . As per the tender document page no. have also mentioned "L1 criteria will be decided on the basis of rate from item no.1 to 36. that includes AMC also "So, if we are reffering this clasue, then for this work IIT must also consider the eligibility of bidder in both SITC + Service & Maintainence part after the complete work.	No change/modification accepted. Please quote as per RFP.
71	TECH SIS Li	12	point 18/g	Seamless connectivity compliance with existing CCTV systems of IIT Delhi duly ink signed and vetted by OEM is not submitted .	Please confirm the scope of seamless connectivity & provide the deta existing CCTV set up the correigendum . If IIT allows, the bidder must conduct the survey at site & collecting the detail the existing CCTV sevice has to be certified by IIT team before the bid sibmission.	In the IIT campus already installed the IP cameras of Honeywell Onvif Cameras.

72	TECH SIS Li	11	point 13	The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of financial bid.	Please clarify this how IIT will doing the evaluation for this.	Please read the tender document clearly, it is very clearly mentioned in the clause.
73	TECH SIS Li	74	Video Management Software. Point 7	Supply, Installation, Testing & Commissioning of Video Management Software for 300 Cameras - 1 lot	In the financial BOQ you have asked the VMS software supporting --- cameras license. But please also clarify if the camera quantity will be subjected to the addition of existing CCTV cameras then where bid quote this per camera license cost	Please quote as per requirement asked.
74	TECH SIS Li	73	Server Point 6	Supply, Installation, Testing & Commissioning of Video Management Server	Pls clarify that the specs given for the Server can handle the all cameras above then the asked quantity of 300 nos in the tender , if integration of existing cameras , also pls specify the camera handling of the server .	Server is capable please consider the future expansion in your commercials.
75	TECH SIS Li	40	Video Management Software. Point 7	Videonetics, Mirasys, Milestone, Honeywell, Bosch, Pelco, Axis & Sony.	Please approve the make 12V as an VMS & VA OEM in list of makes it is already empanelled in IIT Kanpur , IIT Patna & its an reputed OEM in India Product	No change/modification accepted.
76	M/s Tyco S	40	Approved makes	List of approved makes	Kindly add our brand "TYCO" in the approved makes list	No change/modification accepted.
77	M/s Tyco S	41	z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (1)	As per Industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates. Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted.
78	M/s Tyco S	42	b. CMOS: 4 x 1/3" Cmos Sensor or better	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technical Multisensor Camera creates security threats in Producing evidence and not recommended legally while single lens camera is always preferred to avoid any security gap, Multi Sensor cameras are limited to few OEMs kindly change this to single lens camera to allow Maximum OEM participation and achieving higher security surveillance	No change/modification accepted.

79	M/s Tyco S	42	d. Frame rate : 25fps or better	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It is the technical limitation to have full real time frames for high resolution cameras ,Kindly change this to 15 fps or better which follows industry standart ,25fps it limited to some OEMs kindly make the necessary changes to allow maximum OEM participation.	Bidder can quote higher resolution cameras however the core requirement of realtime frames cannot be compromised.
80	M/s Tyco S	42	e. Minimum illumination (Colour) :0.01lux	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Kindle change the illumination to 0.2x to allow maximum OEM participation.	No change/modification accepted.
81	M/s Tyco S	42	g. Lens : 3mm/5mm fixed lens	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It should be limited to specific Lense range to restrict the participation from number of OEMs,kindly allow the lens option as 1.3/1.5/2.8/3/5 mm for better option and results	Already accepted for multisensor cameras.
82	M/s Tyco S	42	k. IR Illumination : Internal or External required	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technically Built in Intergated IR is always considered the best option for better result however external IR creates lots of issues wrt to synchronization and proper lux level to all the directions,Kindly change this to Built in IR only.	No change/modification accepted.
83	M/s Tyco S	42	l. IR Range :30	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	IR Range 30 meter with fishseye camera is limited to few organization .kindly change this to 10-15 Mtr Built in IR which follows industry standard and allowing maximum OEM partiaption.	No change/modification accepted.
84	M/s Tyco S	42	O. SD card support : upto 128GB	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Given value is limited the participation here ,Technically SD card storage only comes in picture incase of network failure which can easily be handled through 64GB space ,kindly change this to 64GB	No change/modification accepted.

85	M/s Tyco S	42	P. Alarm input : 2nos	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	Technically 1 Nos input and output is sufficient to make dry integration ,2Nos is restricting the participation from maximum OEMs,kindly change this to 1 Nos input which follows industry standard	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch. No change accepted kindly quote as per RFP.
86	M/s Tyco S	43	T. Power : 12VDC , 24VAC, POE+	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	As per industry standard 12VDC ,POE option are preferred and AC voltage is used to power up PTZ and other high power cameras,Kindly change this to 12VDC,POE	Already Accepted
87	M/s Tyco S	43	U. Enviroment protection : IP67	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	It is limiting to few OEM participation ,technically for out door Protection of cameras IP66 is ok enough to solve the purpose here ,kindly change this to IP66	Already Accepted
88	M/s Tyco S	43	Y. Certification UL, CE, EN, FCC Part 15, RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Dome Camera (2)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
89	M/s Tyco S	43	Box/Bullet Camera (3)	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	Now these days better to go with Bullet cameras which will be a bundled package of housing Bracket , lens and Intergated IR ,Box camera will additionally require all the accessories and IR illuminator could not be the best solution if we consider with Bullet ,Kindly change this to bullet Camera	No change/modification accepted
90	M/s Tyco S	43	I. Lens : 5-50mm	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	As per Indusrty standard Bullet cameras are available with 2.8-12mm lens to achive the better results insteand box Camera ,5-50 mm lens would only be available with box Camera or will be limited to specific OEM if available in Bullet camera ,kindly change this to 2.8-12mm for maximum OEM partiiciaption.	No change/modification accepted

91	M/s Tyco S	44	Z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (3)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
92	M/s Tyco S	44	Box/Bullet Camera (4)	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (4)	Now these days better to go with Bullet cameras which will be a bundled package of housing Bracket , lens and Intergated IR ,Box camera will addionally require all the accessories and IR illuminator could not be the best solution if we consider with Bullet ,Kindly change this to bullet Camera	No change/modification accepted
93	M/s Tyco S	45	z. Certification UL,CE,EN,FCC ,RoHS	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/Box/Bullet Camera (4)	As per industry standard UL,CE,FCC covers all the testing Method globally so no need of all the certificates ,Kindly make the changes to UL,CE,FCC which follows industry standard to allow maximum OEM participation.	No change/modification accepted
94	M/s Tyco S	46	O. IR Illumination : Internal or External required	9471 /79/EW/IITD/2018-19/NIT 2254/Annexure-A/Technical Specifications Compliance Sheet for IP Camera, Joystick, Switch, VMS & Server/PTZ Camera (5)	Technically Built in Intergated IR is always considered the best option for better result however external IR creats lots of issues wrt to synchronization and proper lux level to all the directions as this is PTZ Camera will move to all the direction , Kindly change this to Built in IR only and remove the external Option.	No change/modification accepted
95	M/s Tyco S	46	P. IR Range : 200m	List of approved Makes	24 port switch Model mentioned here does not match the specs asked under table 7. Switch at page 48 and under S. No. 15 under Schedule of Quantity (BoQ) at page 76 C9200L-24P-4G-E.	Please read model as "C9200L-24P- 4G-E"

96	HIKVISION	41	i.IR: 3 nos. high power	Annexure- A Dome Camera (1)	Ir range is important in the cameras instead of IR LED , as IR Range has already been mentioned in the technical specifications, requesting to remove this clause.	As per observation of committee, IR LEDs & IR distance plays a vital role in giving clarity during night. Change in parameters of IR will compromise with the core and fundamental need of Institute. Minimum number of high power IR LED has been mentioned Bidder can quote with higher number of High Power IR LED's
97	HIKVISION	41	s.Compression : H.264 & MJPEG	Annexure- A Dome Camera (1)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to amend the clause to compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesn't support H.265 compression. H.265 compression should be available in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation
98	HIKVISION	43	r.Compression : H.264 & MJPEG	Annexure- A Multi Sensor Camera (2)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to amend the clause to compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesn't support H.265 compression. H.265 compression should be available in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation

99	HIKVISION	43	I.IR LED: 3xnos. Or higher high power LED	Annexure- A Box/Bullet Camera (3)	IR range is important in the cameras instead of IR LED , as IR Range has already been mentioned in the technical specifications, requesting to remove this clause.	Replied above
100	HIKVISION	44	s.Compression : H.264 & MJPEG	Annexure- A Box/Bullet Camera (3)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to amend the clause to compression : H.265, H.264 & MJPEG	Replied above
101	HIKVISION	45	s.Compression : H.264 & MJPEG	Annexure- A Box/Bullet Camera (4)	H.264 is the old video compression technology, whereas, H.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to amend the clause to compression : H.265, H.264 & MJPEG	Replied above

102	HIKVISION	46	p.IR Range: 200 m	Annexure- A PTZ Camera (5)	As 30X optical camera has been proposed in the tender, the standard IR Range for 30X PTZ camera is recommended to have of 150m IR Range, Thus, requesting to ammend the clause to IR Range: 150m	As per internal assessment of the requirement of the institute, the campus is huge and coverage of maximum possible area has to be done. Compromise with core and fundamental need of institure's security requirment cannot be done. The bidder can use external IR Illuminator to provide coverage of PTZ during night in pitch dark condition.(IR range 150 Meter or better is accepted)
103	HIKVISION	46	t.Alarm Input: 5 nos required	Annexure- A PTZ Camera (5)	It is recommended to have 2 Alarm input in the PTZ camera at it is suffiecient and will provide an economic solution, Thus requesting to ammend the clause to Alarm input : 2 nos. required	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch.
104	HIKVISION	46	u.Alarm Output: 2 nos. required	Annexure- A PTZ Camera (5)	It is recommended to have 1 Alarm Outputt in the PTZ camera at it is suffiecient and will provide an economic solution, Thus requesting to ammend the clause to Alarm Output : 1 nos. required	Alarm I/O's are NO/NC type relay contacts used to trigger events and alarms in cameras from external sources such as fire alarm system/panic switch.
105	HIKVISION	46	v.Compeession: H.264 & MJPEG	Annexure- A PTZ Camera (5)	H.264 is the old video compression technology, whereas, H2.265 is the latest video compression technology. This compression technology which is being used by many leading brands and help to reduce the bandwidth and storage consumption. Thus, reducing the load over network and storage complexity. Thus will be more economical solution. Thus, kindly make it mandatory for the quoting H.265 compatible for the camera, Thus, requesting you to ammend the causeto compression : H.265, H.264 & MJPEG	Most of the approved makes in tender doesnt support H.265 compression. H.265 compression should be avaiable in complete system including VMS. Most of the reputed approved makes does not support H.265 recording. To standardize the tender, H.264 & MJPEG has been adopted to ensure maximum participation

106	HIKVISION	61	3+7 year spare part support from OEM	Page no. 61/commercial compliance Sheet/Point 12	in a rapidly changing scenarios of this era, it is not possible to suply spares for up to 10 years. Production technology and terminologies are changing everyday. Please change it upto 7 years, 3+4 years.	No change/modification accepted.
107	HIKVISION	61	OEM Presentatation for last 15 year	Page no. 61/commercial compliance Sheet/Point 12	No big OEM or very few were supplying CCTV before 15 years in india. It will narrow the OEM selection. Hence request you to change it to 7-8 years presence in the country to give a fair opportunity to all tha major suppliers in the country and worldwide.	Ten years presence in the country is accepted.
108	HIKVISION	61	Seamless intergration with existing CCTV system	Page no. 61/commercial compliance Sheet/Point 14	What is OEM, model and quantity of installed system? What kind of intergration we want with new proposed system?	In the IIT campus already installed the IP cameras of Honeywell Onvif Cameras.
109	HIKVISION	61	POC schedule	Page no. 61/commercial compliance Sheet/Point 16	what would be the PoC date?	Shall be informed
110	HIKVISION	40	Brand inclusion in CCTV Makes	Honeywell, Axis, Pelco, Bosch& Sony.	Request you to include HIKVISION brand also	As per RFP/No change accepted

111	Sparsh	40	List of approved Makes	<p>1. DOME CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>2. Multi Sensor Camera -: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>3. OUTDOOR BOX CAMERA: Honeywell, Axis, Pelco, BOSch & Sony</p> <p>4. BULLET TYPE FIXED CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>5. PTZ CAMERA: Honeywell, Axis, Pelco, Bosch & Sony</p> <p>8. PTZ JOYSTICK - Approved : Honeywell, Axis, Pelco, Bosch & Sony</p>	<p>Restrictive Clause for domestic manufactures, Kindly empanel SPARSH brand in approved brand list and give us an equal opportunity to participate in the tender or remove all the brands. As justified above please refer GFR 2017 Rule 144 Clause 1(b). State that: "not Indicate a requirement for a particular trade mark, trade name or brand".</p> <p>4. Please add SPARSH brand in the approved Makes or Remove all the Brand</p>	<p>Committee had done exhaustive study on selection of brands. Already 5 nos. of makes have been approved. We cannot take request of further brand addition. Bidder is requested to quote from approved make list.</p> <p>As per GFR 2017, Rule 144 Clause (i) "The description of the subject matter of procurement to the extent practicable ". Since this is not a general procurement, but a tender for SITC with AMC for security systems for campus it's not possible to add any further make. Also the cameras should be seamlessly integrated with the existing system.</p>
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112	Sparsh	3, 44,4	Annexure-A Specification on of NVR Dome Camera Multi Sensor Camera Box/Bullet Camere PTZ Camera	Z. Certification: UL, CE, EN, FCC, Rohs	<ul style="list-style-type: none"> · UL, EN and IS (Indian Standard) are equivalent safety standard, all of them being derived from IEC (International Electro-technical Commission), who prepare and publish international standards for Electrical and Electronics Equipment. · Due to security reasons, Ministry of Electronics and information Technology (Meity) has notified a Compulsory Registration Order (CRO) for electronic Equipment. CCTV Camera and Recorders have been covered under this order from 23rd May' 2018 and the Indian standard, i.e IS 13252- part1 has been made mandatory for CCTV Camera and CCTV Recorders . BIS has adopted IS 13252-1 as the Indian Standard . · The equivalence of UL, EN, IS and IEC is also clearly mentioned in the letter from joint Secretary, DietY to joint Secretary MHA. · Dot's public procurement (Preference to Make in India) Order 2017 states on page 3, point 10: "For any telecom product, service and work as in table-A, the procuring entity should not specify to bidder mandatory qualify any foreign eligibility specification(s) issued by any foreign testing/security lab(s)." . Therefore; BIS shall be the only certification asked for CCTV Cameras and Recorders. Requesting you to accept : CE, FCC, RoHS & BIS Certificate or CE, FCC, RoHS & BIS/UL/EN. 	All supplier to quote cameras as per certifications mentioned in RFP and all products shall bear the IS/BIS Mark which shall be inspected upon delivery.
113	Sparsh		Annexure-A Specification of NVR Multi Sensor Camera	p. Alarm Input: 1 nos. required q. Alarm Output 1 nos. required	<p>Technical specification is over specked. It will increase the product cost .</p> <p>1 Alarm input and 1 Alarm output is sufficient to fulfil the functional requirement of RFP because all the fixed cameras are with 1 Alarm input and 1 Alarm output .</p> <p>requesting you to accept : 1 Alarm input 1 Alarm output</p>	As Per RFP

114	Sparsh	45	Annexure-A Specification of NVR PTZ Camera	t. Alarm input : 5 nos. required u. Alarm output : 2 nos required	Technical specification is over specked. It will increase the product cost . 2 Alarm input and 1 Alarm output is sufficient to fulfil the functional requirement of RFP because asked alarm Input/Output will increase the product cost . requesting you to accept : 2 Alarm input 1 Alarm output	As Per RFP
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115 Minimum Period required for storage of CCTV Data. --- Ninety Days
