



अखिल भारतीय आयुर्विज्ञान संस्थान,
All India Institute of Medical Sciences
Engineering Branch, Bhubaneswar (Odisha)-751019
www.aiimsbhubaneswar.nic.in

NOTICE INVITING e-TENDER

(File No.: AIIMS/BBSR/ENGG/ELE-2023/CCTV/181)

N.I.T. No.	AIIMS/BBSR/ENGG/ELECT/24/2023
Name Of Work:	"Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar".
Estimated Cost:	Rs. 3,88,28,804/-
Earnest Money:	Rs. 7,76,576/-
Performance Guarantee:	@ 3% of Contract Value
Security Deposit:	@ 2.5% of Contract Value
Completion Period	180 Days
Type of work:	Supply, installation, testing, and commissioning work
Tender issue date:	29/08/2023
Pre-Bid Conference Date:	08/09/2023 on 15.00 Hours
Last Date & Time of Submission of Tender:	22/09/2023 by 17.00 Hours

"Certified that, this tender document contains **99** pages only".

**Executive Engineer (Elect.)
AIIMS, Bhubaneswar**

Government of India, Ministry of Health & Family Welfare, AIIMS, Bhubaneswar

Name of Work	:	“Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar”.	
NIT No.	:	AIIMS/BBSR/ENGG/ELECT/24/2023	
<div>INDEX</div>			
Sl. No.	Subject		Page No.
1.	Subject & Index	-	1 – 2
2.	Notice Inviting e-Tender / Notice Inviting Tender	-	3
3.	Information & Instructions to Bidders for Tendering	-	4 -6
4.	General Rules & Directions of Contract	-	7 - 10
5.	Declaration to be given by tenderers (Annexure – I)	-	11
6.	Information Regarding Eligibility Letter Of Transmittal (Annexure-II)	-	12
7.	Form for Financial Information	-	13 – 19
8.	Manufacturers’ Authorization Form (Appendix- A)	-	20
9.	Bidders Undertaking (Annexure – III)	-	21- 22
10.	General Conditions For Contract (Annexure – IV)	-	23 - 39
11.	Technical Bid (Eligibility Criteria) (Annexure – V)	-	40
12.	Affidavit (Annexure – VI)	-	41
13.	Form for Performance Security (Bank Guarantee) (Annexure – VII)	-	42
14.	Format for Agreement (Annexure – VIII)	-	43- 47
15.	Indemnity Bond (Annexure –IX)	-	48
16.	Performa of Schedules (Annexure – X)	-	49 - 50
17.	Technical Compliance sheet (Annexure – XI)	-	51 - 92
18.	preferred Make list Of Materials (Annexure – XII)	-	93
19.	Financial Bid (Schedule of Quantities) (Annexure – XIII)	-	94-96
20.	e-Tendering Instruction to the Bidder (Annexure – XIV)	-	97 -99

ALL INDIA INSTITUTE OF MEDICAL SCIENCE, BHUBANESWAR NOTICE INVITING e-TENDER

(a)	Name of Work	"Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar".
(b)	Tender No.	AIIMS/BBSR/ENGG/ELECT/24/2023
(c)	Completion Period	180 Days
(d)	Estimated Cost	Rs. 3,88,28,804/- (Rupees Three crore eighty-eight lakh twenty-eight thousand eight hundred four only)
(e)	Earnest Money Deposit (EMD)	Rs. 7,76,576/- (Rupees seven lakh seventy-six thousand five hundred seventy-six only)
(f)	Performance Security (Bank Guarantee)	3% of Tendered Cost.
(g)	Security Deposit	2.5% of the Tendered Value.
(h)	Tender documents will be Issued From	As per the e-Tendering Portal of AIIMS Bhubaneswar http://www.aiimsbhubanewar.nic.in and CPP Portal www.eprocure.gov.in for downloading/ participating
(i)	Pre-Bid Conference Date :	08/09/2023 on 15:00 Hours
(j)	Last Date & Time of Submission	22/09/2023 by 17.00 Hours
(k)	Date, Time for the Opening of Technical Bid	25/09/2023 by 11.00 Hours

1. The indenting Bidder must read the Terms & conditions of AIIMS, Bhubaneswar carefully. He/They should only submit his/her/their bid if he/she/they consider himself/themselves eligible and he/she/they is/are in possession of all the documents required.
2. Information and Instructions for bidders posted on the website shall form part of the bid document.
3. The Bid documents consisting of specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded from the website www.aiimsbhubaneswar.edu.in or <https://eprocure.gov.in/eprocure/app>

**Executive Engineer (Elect.)
AIIMS, Bhubaneswar**

**INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF BID DOCUMENT
AND TO BE POSTED ON WEBSITE**

(APPLICATION FOR INVITING BIDS ON TWO BID SYSTEMS)

The Executive Engineer (Elect.), AIIMS, Bhubaneswar, (Phone - 0674 2476500, Email - eeel@aiimsbhubaneswar.edu.in) invites on behalf of Executive Director, AIIMS, Bhubaneswar, Percentage Rate Tender from reputed Agency in Two (02) Bid system (Technical cum Eligibility & Financial respectively) from eligible Agency of CPWD, MES, AIIMS, central Govt., State Govt., Central PSU, State PSU. having successfully completed works of similar nature as per eligibility criteria for the following work: -

Ser. No.	Description	Details
(a)	NIT No.	AIIMS/BBSR/ENGG/ELECT/24/2023
(b)	Name of Work:	"Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar".
(c)	Estimated Cost	Rs. 3,88,28,804/- (Rupees Three crore eighty-eight lakh twenty-eight thousand eight hundred four only)
(d)	Earnest Money	Rs. 7,76,576/- (Rupees seven lakh seventy-six thousand five hundred seventy-six only)
(e)	Period of Completion	180 Days
(f)	Last date and time of online submission of tender	22/09/2023 by 17.00 Hours
(g)	Time and date of on line opening of Tender (Technical Bid)	25/09/2023 by 11.00 Hours
(h)	Time and date of opening of Online Financial Bids	Will be informed to the Technically qualified Bidders.
(i)	Hard copies of Declaration in lieu of submitting of EMD, Registration Certificates, Undertaking, Affidavit and other uploaded document to be submitted to mini Director Board room 1st floor Administrative Block AIIMS Bhubaneswar office by the Bidders for reference. However, the Eligibility will be considered as per uploaded documents. For any query kindly contact: eeel@aiimsbhubaneswar.edu.in Phone: 0674 – 2476500	To be submitted on same Days i.e. on 22/09/23 i.e. by 17.30 Hours. In case the last day happens to be closed holiday, these Documents shall be submitted on the next working day failing which a technical Bid will not be considered for Evaluation.
(j)	Mode of submission of Tender	Online. (CPP Portal)

1. **Eligibility Criteria:** Contractor /Agency who fulfilled the following requirement shall be eligible to apply. Joint venture in not accepted.

a) The bidder should have satisfactorily completed the works as mentioned below during the last seven years ending the previous day of the last date of submission of the bid.

i. one (01) similar work each costing not less than **Rs.3,10,63,043/-**.

OR

ii. Two (02) similar works each costing not less than **Rs. 2,32,97,282/-**

OR

iii. Three (03) similar works each costing not less than **Rs. 1,55,31,522 /-**

Similar work means: "Supply, installation, testing and commissioning & Maintenance of CCTV Surveillance system".

2. The Bidder should have registration up to date with **Employee Provident Fund (EPF) Commissioner** and **Employee State Insurance (ESI) Corporation**.
3. The bidder should have a positive net worth and should not have incurred loss in the last 03 (Three) Years ending i.e. by 31st March 2023, duly certified by Chartered Accountant.
4. Agreements shall be drawn with the successful bidders for item/items in the prescribed format. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
5. The bid document consists of a survey report, layout diagram, specifications, the schedule of quantities of the various type of items to be executed and the set of terms & conditions of the contract to be complied with, and other necessary documents.
6. **Submission/Upload of OEM/OEM Authorized Agency / (Appendix- A.) is mandatory, if the bidder will fail to upload the manufacturing authorization certificate the bid shall be summarily rejected.**
7. Conditional Bids shall not be considered and will be out-rightly rejected at the very first instance.
8. Average annual financial, the turnover during the last three years, ending 31st march 2023 should be more than 50% of the estimated cost (Not less than **Rs.@ 1,94,14,402/-**)
9. The intending bidder must read the terms and conditions of the Tender document carefully. He should submit his bid if he considers himself eligible and he is in possession of all the certificates/documents required.
10. Pre-bid Conference shall be held on the First floor of the Director board room, admin block, AIIMS Bhubaneswar. The Pre-bid queries need to be sent through mail at this mail: eeel@aiimsbhubaneswar.edu.in before the prebid date. Based on email the queries will be discussed & finalized. However, No further queries will be accepted after the pre-bid meeting.
11. Information and Instructions for bidders for e-tendering posted on the website shall form part of the bid document.
12. the bid document consisting of NIT, 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 <https://eprocure.gov.in> or www.aiimsbhubaneswar.edu.in free of cost.

13. Copies of eligibility documents and EMD as specified in the notice inviting tender shall be scanned and uploaded on the e-tendering website within the period of tender submission. Bidders can upload documents in the form of JPG format, PDF format, and any other format as permissible by the e-tendering portal.
14. Bidders must ensure to quote percentage above or below or as per against BOQ price. The column meant for quoting rate in figures appears in sky blue colour. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, the rate of such item shall be treated as "0" (ZERO). After submission of the bid online, the Agency can re-submit the revised bid any number of times but before the last time and date of submission of the bid as notified.
15. After the submission of the bid online, it can be revised any number of times before the specified time on the last date of submission of the bid. While submitting the revised bid, the bidder can revise the rate of one or more item(s) any number of times (he need not re-enter the rate of all the items) but before the last time and date of submission of the bid as notified.
16. Financial bids shall be opened online only for eligible bidders those are qualified in Technical evaluation.
17. If the Agency is found ineligible after the opening of bids, his bid shall become invalid.
18. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified agencies to any number deemed suitable by it if too many bids are received satisfying the laid down criterion.

**Executive Engineer (Elect.)
AIIMS, Bhubaneswar**

GENERAL RULES & DIRECTIONS OF CONTRACT

The Executive Engineer (Elect.), AIIMS, Bhubaneswar, (Phone – 0674-2476500 , Email - eeel@aiimsbhubaneswar.edu.in) invites on behalf of the Executive Director, AIIMS, Bhubaneswar, a reputed Agency in Two (02) Bid system(Technical cum Eligibility & Financial respectively) from eligible agency of CPWD, MES, AIIMS, central Govt., State Govt., Central PSU, State PSU having successfully completed works of similar nature as per eligibility criteria for the following work: -

Name of Work: *Tender for “Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar”.*

1. ***Preparation & Submission of Tender through Online. The Tender should be submitted in 02 (Two) parts i.e. Technical Bid and Financial Bid Respectively. The Bid shall be submitted by the Bidder through online for “Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar”.***
2. ***The Bidders shall have to submit original documents for Original Earnest Money Deposit and self-certified copies of all the scanned and uploaded documents before the date and time of opening of tender at mini Director Board room 1st floor Administrative Block AIIMS Bhubaneswar failing which the bid will be summarily rejected.***
3. ***List of Documents to be scanned and uploaded within the period of bid submission.***
 - (a) Earnest Money Deposit in Favour of “All India Institute of Medical Sciences, Bhubaneswar”.
 - (b) FROM ‘A to F’ duly filled in and signed with the stamp.
 - (c) Completion Certificate of Similar Work along with work order and detail BOQ copy from the govt organization not below the Rank of Executive Engineer or equivalent.
 - (d) Certificate of Registration for GST and acknowledgment of up-to-date filed return if required.
 - (e) Copy of PAN card
 - (f) Copies of IT return last 3 Years.
 - (g) Copies of ESI Registration (Enclose latest challan copy).
 - (h) Copies of EPF Registration (Enclose latest challan copy).
 - (i) The Bidder should have their Registered Office/Branch in Bhubaneswar. If not, an Office should be opened in Bhubaneswar within 30 (Thirty) Days of the award of Work. Details of Address Proof of Office located at Bhubaneswar should be given to EE(Elect).
 - (j) Declarations to be given by the Tenders.
 - (k) Profit/Loss: The bidder should not have incurred any loss (Profit after Tax should be positive) in more than two years during available the last five consecutive balance sheets, duly audited and certified by Chartered Accountant.
 - (l) Each page of the e-tender documents should be duly signed with a seal otherwise, the bid shall become invalid.
 - (m) OEM/OEM Authorized agency MAF Certificate as per (Appendix- A)
 - (n) Affidavit as per Annexure – I
 - (o) Technical Specification Compliance Sheet shall be complied by the concerned OEM letter head
4. **The bid submitted become invalid, if any discrepancy/shortfall is noticed between the eligibility documents (as per Sl. No 03 para ‘a’ to ‘o’) as uploaded at the time of submission of the bid.**
5. The intending bidder must read the terms and conditions of **CPWD -8** carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
6. **(a) Earnest Money Deposit.** The bidder shall be required to submit the Earnest Money Deposit in the form of a Fixed Deposit Receipt or Demand Draft from any Nationalized/Schedule Bank duly pledged in the name of the "All India Institute of Medical Sciences, Bhubaneswar". Documents received without submitting EMD will be rejected.

7. Performance Guarantee/ security deposit:

- (a) The successful Agency will be required to furnish a Performance guarantee of 03% (Three Percent) of Contract Value in the form of a Fixed Deposit Receipt or Bank Guarantee from any Nationalized/Schedule Bank duly pledged in the name of the "**All India Institute of Medical Sciences, Bhubaneswar**" which shall be kept valid for a period of 60 days beyond completion of all the contractual obligations as per GCC.
 - (b) **The security deposit:** can be forfeited by order of this Institute in the event of any breach or negligence or non-observance of any condition of the contract or for unsatisfactory performance or non-observance of any condition of the contract. Performance Security will be discharged after completion of the Agency's performance obligations (including the Warranty/Guarantee period) under the contract. In case the Agency fails to deposit the said performance guarantee within the period including the extended period if any, the Earnest Money deposited by the Agency shall be forfeited automatically without any notice to the Agency. The earnest money deposited along with the tender shall be returned after receiving the aforesaid performance guarantee.
8. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids, the means of access to the site and in general shall themselves obtain all necessary information as to risks, contingencies, and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at their 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 the conditions.
 9. The Tender paper/documents can be seen/downloaded from the Official website & submitted through online and in hardcopy offline. For any query, Executive Engineer, Electrical, Phone: 0674 – 2476500 AIIMS, Bhubaneswar, may be contacted.
 10. The Executive Director, AIIMS, Bhubaneswar 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 conditions is not fulfilled or any condition including that of the conditional rebate is put forth by the bidder shall be summarily rejected.
 11. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the agency who resort to canvassing will be liable to rejection.
 12. The Executive Director, AIIMS, Bhubaneswar 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.
 13. The Agency shall not be permitted to bid for works in the AIIMS, Bhubaneswar responsible for award and execution of contracts, in which his near relative is posted 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 AIIMS, Bhubaneswar. Any breach of this condition by the Agency would render him liable to be removed from the approved list of Agency of this Department.
 14. 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 Agency 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 is liable to be canceled if either the Agency or any of his employees is found at 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 Agency's service.

15. **The bid for the works shall remain open for acceptance for a period of 180 days from the date of the opening of bids.**
16. This notice inviting bid shall form a part of the contract document. The successful bidder/ Agency, 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 "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 rate quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
17.
 - (a) The quoted Rates shall be inclusive of GST.
 - (b) **Security Deposit equal to 2.5%** of the Contract Value will be deducted from the RA Bills of the Agency.
 - (c) The Income Tax as applicable shall be deducted from the Bill unless exempted by the Income Tax Department.
 - (d) 1% labour cess will be deducted from bills
18. **Goods and Services Tax (GST).**
 - (a) **GENERAL REMARKS ON TAXES & DUTIES:** In view of GST Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST/VAT, Service tax Entry Tax and other indirect taxes and duties have been submerged in GST. Accordingly, reference of Excise Duty, service Tax, VAT, Sales Tax, Entry or any other form of indirect Tax except of GST mentioned in the bidding document shall be ignored.
 - (b) Bidders are required to submit copy of the GST Registration certificated while submitting the bids wherever GST (CGST & SGST/UTGST or IGST) is applicable.
 - (c) "GST shall mean Goods and services Tax charged on the supply of material(s) and services. The term 'GST' shall be construed to include the integrated Goods and Services Tax (Hereinafter referred to as "IGST") or central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and services Tax (Hereafter referred to as "SGST") or union Territory Goods and services Tax (hereinafter referred to as "UTGST").
 - (d) Quoted price/rate(s) should be inclusive of all taxes and duties, except GST (i.e. IGST or CGST and SGST /UTGST applicable in case of interstate supply or intra-state supply respectively and cess on GST if applicable) on the final service. However, the GST rate (including cess) to be provided in the respective places in the price Bid. please note that the responsibility of payment of GST (CGST & SGST or IGST or UTGST) lies with the supplier of Goods/services (service provider) only. Supplier of Goods/Service (Service provider) providing taxable service shall issue an invoice/Bill, as the case may be as per rules/regulations of GST. Further, returns and details required to be filled under GST laws & rules should be timely filed by the supplier of Goods /services (Service provider) with the requisite details.
 - (e) The Agency(s) must be submitted GST Challan copy in original duly signed with a stamp of the firm, against this work before releasing Security Deposit (SD) money.

19. FRAUD AND CORRUPTION:

- 19.1 The Engineer-in-Charge will reject a proposal for an award if he determines that the bidder recommended for award has been engaged in corrupt or fraudulent practices in competing for the contract in question. He will report to the Officer Inviting Bid /next higher authority.
- 19.2 Canvassing, whether directly or indirectly, in connection with tenders is strictly prohibited & the tenders submitted by the agency who resorts to canvassing will be liable for rejection.
- 19.3 The Agency shall be debarred for any period of time as decided by the AIIMS, Bhubaneswar Authority & forfeit the entire amount of EMD for the following reason-.
 - (i) If the Agency submits false experience/completion certificates, **as mentioned in Sl. No. - 1 Page No. - 5 (refer under Eligibility Criteria)**. The department reserves the right to verify the particulars furnished by the applicant independently.
 - (ii) If the Agency fails to commence the work on or before the scheduled date stated in the work order.
 - (iii) Violates any important condition of the contract.

- 20. **Obtaining the OEM Manufacturers' Authorization Form (Appendix- A) is sole responsible of the bidder.**
- 21. Information & Instruction for Agency will form Part of NIT.

Executive Engineer (Elect.)
AIIMS Bhubaneswar

Annexure – I

DECLARATIONS TO BE GIVEN BY THE TENDERERS

It is to certify that: -

- (a) I /We have gone through CPWD W-8 amended up to correction Slip No.6 as available on the website www.eprocure.gov.in / www.aiimsbhubaneswar.edu.in or in the office of Superintendent Engineer and I/We agree with the terms and conditions of it and understood that it will form part of the agreement.

Date: _____

Signature of the Tenderer

- (b) “I, S/o Shri resident of hereby certify that none of my Relative(s) as defined in Paragraph 14 of CPWD W-6 is/are employed in AIIMS Electrical Zone, Odisha. In case at any stage, it is found that the information given by me is false/incorrect, AIIMS shall have the absolute right to take any action as deemed fit without any prior intimation to me”.

Date: _____

Signature of the Tenderer

NOTE: - (To be certified by all the partners in case of partnership firms, by all the Directors in case of companies).

- (c) “I/We undertake and confirm that eligible similar Work(s) has/have not been got executed through another Agency on back to back basis. Further, it is stated that, if such aviolation comes to the notice of the Department, then I/We shall be debarred for bidding in AIIMS in the future forever. Also, if such a violation comes to the notice of AIIMS, Bhubaneswar before the date of start of work, the Superintending Engineer shall be free to forfeit the entire amount of Performance Guarantee”.

Date: _____

Signature of the Tenderer

Annexure – II**INFORMATION REGARDING ELIGIBILITY
LETTER OF TRANSMITTAL**

From :

To

The Executive Engineer
.....

Subject: Submission of Bids for the Work of

Sir;

Having examined the details given in the bid documents for the above work, I/We hereby submit the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed forms A to F and accompanying statement are true and correct.
2. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We submit the following certificates in support of our suitability, technical knowledge, and capability for having successfully completed the following eligible similar works :

Name of the Work	Certificate from

Certificate: It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/We shall be liable to be debarred, disqualified/cancellation of enlistment in case any information furnished by me/us is found to be incorrect.

Enclosures: Seal of Bidder Date

of Submission: Signature(s)

of Bidder(s).

FINANCIAL INFORMATION (FORM 'A')

I. Financial Analysis –

Details to be furnished duly supported by figures in the balance sheet/profit & loss account for the last three financial years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Financial Years	2020-21	2021-22	2022-23
Gross Annual Turn over			

- Gross Annual Turn Over on construction works.
- Profit/Loss.

II. Financial arrangements for carrying out the proposed work.

Signature of Bidder (s)

FORM 'B'**BANKERS CERTIFICATE FROM A SCHEDULED BANK**

This is to certify that to the best of our knowledge and information that M/S Shri Having marginally noted address, as a Customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of Rs. (Rupees)

This certificate is issued without any guarantee or responsibility on the Bank or any of the officers.

(Signature) For the Bank

NOTE

1. Banker's Certificates should be on the letterhead of the Bank, addressed to tendering authority.
2. In the case of a Partnership firm, the certificate should include the names of all partners as recorded with the Bank.

FORM 'C'

**DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS
ENDING THE PREVIOUS DAY OF THE LAST DAY OF SUBMISSION OF TENDERS**

Ser. No.	Name of the Work/Project and Location	Owner or sponsoring organization	Cost of work in corers of rupees	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration cases pending/ in progress with details*	Name and address/telephone No of officer to whom reference may be made	Whether work was done on back to back basis Yes/No
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)
1.									
2.									
3.									
4.									
5.									
6.									
7.									

***Indicate the gross amount claimed and the amount awarded by the Arbitrator.**

Signature of Bidder(s)

FORM 'D'**STRUCTURE & ORGANISATION**

1. Name & Address of the Bidder :
2. Telephone No/Telex No/Fax No :
3. The legal status of the bidder (scan & upload copies of the original document defining the legalstatus)
 - (a) An individual
 - (b) A proprietary firm.
 - (c) A firm in partnership.
 - (d) A limited Company or Corporation.
4. Particulars of registration with various Government Bodies (Scan & upload attested photo copy)

Organization/Place of Registration**Registration No**

- 1.
- 2.
- 3.

- Names and titles of Directors and Officers with designation to be concerned with this work.
- Designation of individuals authorized to act for the organization.
- Has the bidder, or any constituent partner in case of partnership firm, limited company/ Joint Venture, ever been convicted by the Court of Law? If so, give details.
- In which field of Civil Engineering construction, the bidder has specialization and interest?
- Any other information considered necessary but not included above.

Signatures of Bidder(s)

FORM 'E'**TENDER ACCEPTANCE FORM**

Name of the tender:

Tender No:

The due date for tender:

Opening time & date of tender:

Affix duly
attested P.P. Size
photograph
of the bidder

	Item	
	Details of Bidder	
	i. Name of Bidding Entity	
	ii. Registration number of the Bidding Entity	
	iii. Regd. Address	
	iv. PAN No.	
	Details of Authorized Signatory of the Bidder for the tender	
	i. Name	
	ii. Designation	
	iii. Address	
	iv. Office Telephone No	
	v. Mobile No.	
	vi. Fax No.	
	Details of the Authorized Person of the Bidder to deal with	
	i. Name	
	ii. Designation	
	iii. Communication Address	
	iv. Telephone No	
	v. Fax No.	
	vi. Email address	

	i. Please specify whether the bidder is a sole Proprietor/partnership Firm/Company/Society/Consortium ii. Name, address/ Telephone No. of Supply Installation and commissioning of CCTV Solution, at AIIMS Bhubaneswar/ partners	
--	---	--

:

	Amount	
ii.	RTGS/NEFT Details	
	Date of Transfer	
iv.	Name of the issuing authority	
	Confirm your organization employs more than 20 employees	
	a) PF Registration No. b) ESI Registration No. c) GST Registration No.	
	Any other information.	

9. Declaration by the contractor: -

This is to certify that I / We before signing this tender have read and fully understood all the terms and conditions and instructions contained herein and undertake myself/ourselves to abide by the said terms and conditions.

(Signature of Tenderer)

Name:

Designation:

Address:

Dated:

Phone No.(O):

FORM 'F'**POWER OF ATTORNEY****(On a Stamp Paper of relevant value)**

I/ We..... (Name and address of the registered office) do hereby constitute, appoint and authorize Sri/Smt (Name and address) who is presently employed with us and holding the position of as our attorney, to act and sign on my/our behalf to participate in the tender no..... for (Equipment name).

I/ We hereby also undertake that I/we will be responsible for all action of Sri/Smt Undertaken by him/her during the tender process and thereafter on the award of the contract. His / her signature is attested below

Dated this the ___ day of 201_ For _____

(Name, Designation and Address)

Accepted

(Signature)

(Name, Title and Address of the Attorney)

Date: _____

Appendix- A**Manufacturer's Authorization Form**

To;

The Executive Director
All India Institute of Medical Sciences
AIIMS, Bhubaneswar

Tender No :

Dated :

E-Tender for the work of : "Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar".

Equipment Name & BOQ No :

Dear Sir/Madam;

1. We____(Name of the OEM/OEMauthorized agency) are the original manufacturer of the above equipment having a registered office at _____ (full address with telephone No/Fax _____ do hereby declare to give maintenance _____ support _____ to _____ through M/S _____, who is participating in Tender having No _____ of AIIMS, Bhubaneswar.
2. We also hereby undertake to provide full guarantee/ full performance warrantee /Comprehensive Annual Maintenance Contract as agreed by the bidder in the event the bidder is changed or the bidder fails to provide satisfactory after-sales and service during such period of Comprehensive Warranty/ Comprehensive Annual Maintenance Contract and to supply all the spares/accessories/consumables/material/software upgrades/ labour etc. during the said period through the appoint bidder by AIIMS, Bhubaneswar.
3. We also hereby declare that we have the capacity to manufacture and supply the quantity of the equipment tendered within the stipulated time, and provide service to install, and commission through the bidder
4. We Also Compiled the Technical data sheet attached with the authorized signature and company seal.
Name : _____ Yours _____
For and on behalf of M/S _____ (Name)
Faithfully, _____ (Name of the Manufacturers)
Place : _____
Date : _____

Note : This letter of authority should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer.

Executive Engineer (Elect.)

AIIMS/BBSR/ENGG/ELECT/24/2023

(Signature of the Bidder with Seal)

Annexure – III

All India Institute of Medical Sciences
Engineering Branch, Bhubaneswar (Odisha)-751019
www.aiimsbhubaneswar.edu.in

BIDDERS UNDERTAKING

E-Tender for the work of: Tender for **“Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar”**.

To be submitted online by:

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 AIIMS Bhubaneswar within the time specified in Performa of Schedules (Annexure – X), viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings, 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 respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **One Hundred Eighty (180) days** from the due date of opening of the financial bid and not to make any modification in its terms and conditions.

A sum of **Rs** is hereby forwarded in Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank as earnest money. A copy of the earnest money in Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank is submitted with tender. If I/We, fail to furnish the prescribed performance guarantee within the prescribed tender, I/we agree that the said President of India 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 work as specified, I/We agree that the President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be guaranteed 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 General Conditions of Contracts (CPWD). Further, I/we agree that in case of forfeiture of earnest money or 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, if such a violation comes to the notice of the Department, then I/We shall be debarred for tendering in AIIMS Bhubaneswar in the future forever. Also, if such a violation comes to the notice of the Department before the date of start of work, The Engineer – in – Charge shall be free to forfeit the entire amount of Earnest Money Deposited / 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 therefrom 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.

Dated.....

Signature of Contractor
Postal Address

Witness:

e-Mail id

Address:

Occupation:

(To be filled in by the contractor/witness as applicable)

ACCEPTANCE

The above tender (as modified vide letters mentioned hereunder) is accepted by me for and on behalf of the AIIMS Bhubaneswar for a sum of ₹. _____ *

(Rupees _____ * _____)

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

a) _____ *

b) _____

c) _____

For & on behalf of the AIIMS Bhubaneswar.

Signature.....

Dated

Designation.....

Annexure – IV

GENERAL CONDITIONS FOR CONTRACT

Name of work: “Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar”.

1. Prices quoted should be valid for the contract period from the date of opening of your offer. The prices quoted should be for the entire scope of work.

2. **Rates-** The prices quoted shall be inclusive of GST, PF & ESI amount paid to the statutory authorities by the Agency and shall be reimbursed on an actual basis throughout the contract period on submission of the documentary evidence in the next bill or after the final bill. GST shall be reimbursed on an actual basis on submission of the documentary evidence.

3. PF & ESIC Contribution: -

(i) The Agency shall have to register with PF & ESIC (where ever applicable) for workmen engaged for the work & challans/deposit receipts of PF ESI contribution shall be submitted in EIC office for verification/reimbursement, at the time of submission of the bill.

4. Terms of Payment: -

Running bill Payment:

The Running payments for the work shall be released **as per the actual measurement of the work executed at the site** by AIIMS, Bhubaneswar. The Security Deposit @ 2.5% of the gross amount of the bill shall be deducted from the running bills, which shall be released after the successful completion of the warranty period from the date of completion of work, without any interest thereupon. 1% of labour cess will be deducted from bills.

The following documents as applicable shall be produced and the self-attested photocopy shall be submitted by the Agency during each running bill:

- (i) Measurement Sheet
- (ii) Delivery Challan of all the material supplied.
- (iii) Test Certificate of Equipment.
- (iv) Warranty/Guarantee Certificate if applicable.
- (v) GST return up-to-date Voucher.
- (vi) Color Photos for Executed work on glossary paper.
- (vii) No claim certificate (Final bill).

5. Transport

- 5.1) The transport required within the complex for carrying items inside the AIIMS complex for supply of materials, repairing work, etc. shall be arranged by the Agency. The Agency may however seek the help of the department to take permission to take heavy items for repair outside the AIIMS, Bhubaneswar complex if considered necessary.
- 5.2) Agency's materials, transport, etc. shall normally be permitted to go out of the area between 9.00hrs.to 18.00hrs only. The agency may also be allowed to carry out the work beyond office hours(day and night) with special permission from the Executive Director AIIMS, Bhubaneswar. However, no movement of materials and transport out of the site of works shall be permitted during the night or during holidays unless special permission is obtained from the Executive Director, AIIMS, Bhubaneswar.

6. Antecedents :

The Agency shall employ only Indian Nationals as his representatives, servants, workmen and verify their antecedents and loyalty before employing them on the works. He shall ensure that no person of notorious antecedents and nationality is in any way associated with the works and if for reasons of technical collaboration or other consideration, the employment of any foreign national is unavoidable, the Agency shall furnish full particulars to this effect to the accepting officer at the time of submission of tender. The Executive Director, AIIMS, Bhubaneswar shall have full powers and without giving any reasons to the Agency immediately cease to employ in connection with this contract, any representative agency, servant and workman, or employee whose continuous employment in his opinion is undesirable. The Agency shall not be allowed any compensation on this account.

7. Penalty Clause:

In case of any failure of / delay in services, the penalty shall be invoked as per Clause-2 of GCC of CPWD works-2023. [With maximum rate @ 1% (one percent) maximum per month of delay to be computed on a per day basis based on the quantum of damage suffered due to stated delay on the part of Contractor. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10 % of the accepted Tendered Value of work.]

8. Maintenance of records:

The Agency shall maintain all records such as log book, schedule of maintenance activity, complaint register, attendance register, stock register, material requisition book, gate pass, and other statutory registers for manpower employed, etc. Such records are to be maintained as per the formats supplied by the department. Records of major breakdowns that occurred during the period shall be maintained showing the cause of the defect and the location and type of repairs carried out. The cost of stationary required for maintenance of the above record are under the scope of the Agency.

13. The work shall be governed by AIIMS, Bhubaneswar general conditions, and security regulations of the contract.

14. The Executive Director, AIIMS, Bhubaneswar or any one or more officers authorized by him shall have the right to visit Agency/sub-agency premises to check the physical progress of work, inspection, testing etc. of the contract items or any part thereof at any time during all stages of work. The Agency shall extend all necessary facilities for carrying out such inspection and check of the progress of work.

15. Specifications and Standards

The work shall be in conformity with relevant Indian standard specifications, and National Electrical codes including provisions of these specifications. In the event of any conflict between the provisions/clause for a particular item in the above-mentioned rules and specifications, the most suited clause based on requirement shall be applicable.

16. It is the responsibility of the successful tenderer to hand over the entire system to the Executive Director, AIIMS, Bhubaneswar on completion of the work in working condition. Any damages/replacement etc. should be done at free of cost with the knowledge of the Executive Director, AIIMS, Bhubaneswar. The final taking over will be done after detailed joint inspection by the Executive Director, AIIMS, Bhubaneswar/ or his authorized representative and the Agency on completion of the work.

17. Risk Purchases:

The cost of repairs/rectification necessitated due to negligence of the Agency's employee shall be

recovered from the Agency as per the assessment made by the Executive Director, AIIMS, Bhubaneswar. If the Agency fails to repair/rectify the defects in installations within the time given to him, the same will be got repaired/rectified by another agency at the risk and cost of the Agency. The decision of the Executive Director, AIIMS, Bhubaneswar shall be final and binding on both the parties.

18. The Agency shall be solely responsible for compliance to the provisions of various Labour and industrial laws, such as, wages, allowances, compensations, EPF, and Bonus. Gratuity, ESI, etc. relating to personnel deployed by it at AIIMS, Bhubaneswar site or for any accident caused to them, and the institute shall not be liable to bear any expense in this regard. The Agency shall make payment of wages to workers engaged by it by the stipulated date irrespective of any delay in settlement of its bill by AIIMS, Bhubaneswar for whatever reason. The Agency shall also be responsible for the insurance of its personnel. The Agency shall specifically ensure compliance of various Laws / Acts, including but not limited to with the following and their re-enactments/amendments/modifications: -

- (a) The Payment of Wages Act 1936.
- (b) The Employees Provident Fund & MP Act, 1952.
- (c) The Contract Labour (Regulation) Act, 1970.
- (d) The Payment of Bonus Act, 1965.
- (e) The Payment of Gratuity Act, 1972.
- (f) The Employees State Insurance Act, 1948.
- (g) The Employment of Children Act, 1938.
- (h) The Motor Vehicle Act, 1988.
- (i) Minimum Wages Act, 1948.

19. Breach of Terms and Conditions.

Noncompliance with any terms and conditions enumerated in the contract shall be treated as a breach of contract. In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to reject the bid at any stage without assigning any reason thereof and nothing will be payable by AIIMS, Bhubaneswar in that event the EMD shall also stand forfeited.

20. Termination of Contract.

AIIMS, Bhubaneswar has the right to terminate the contract, in case the work performance is not up to the standard, or if there is any violation of the contract. The decision by the Engineering- In-charge is final and binding in this regard.

21. Arbitration.

The Arbitration shall be held in accordance with the provision of the Arbitration and Conciliations Act, 1996, and the venue of arbitration shall be at Bhubaneswar. The decision of the Arbitrator shall be final and binding on both parties.

22. Dispute Settlement.

It is mutually agreed that all differences and disputes arising out of or in connection with this agreement shall be settled by mutual discussions and negotiations if such disputes and differences cannot be settled and resolved by discussions and negotiations then same shall be referred to the sole Arbitrator appointed by the Executive Director, AIIMS, BHUBANESWAR whose decision shall be final and binding on both the parties. The contract shall be governed by laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/ processing.

23. GST and other Taxes as applicable shall be recovered/ paid from the Agency's bill as per Govt. of India/AIIMS Rules.

ADDITIONAL CONDITIONS FOR CCTV WORK

A. GENERAL CONDITIONS

1. **Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar.**
2. For all items of Electrical, CPWD specifications with correction slip up to the date of receipt of the tender shall be followed. For the items which are not covered under CPWD specifications, the special conditions /B.I.S. specifications shall be applied. In this regard the decision of the Engineer-in-charge shall be final & binding.
3. Wherever any reference is made to any Indian Standard, it shall be taken as a reference to the latest edition with all amendments/revisions issued thereto up to the date of receipt of tenders.
4. Unless otherwise specified, the agreement rates for all items of work in the schedule of quantities are for all heights, depths, leads, and lifts involved in the execution of work.
5. Other agencies working at the site will also simultaneously execute the work entrusted to them and the Agency shall offer necessary cooperation wherever required to other agencies.
6. On account of security considerations, there could be some restrictions on the working hours and movement of vehicles for transportation of materials. The contractor shall be bound to follow all such restrictions and adjust the program for execution accordingly, for which nothing extra shall be paid.
7. The work shall be carried out in a manner complying in all respects with the requirements of relevant by-laws of the local bodies, Labour Laws, minimum wages act, workmen compensation act, and other statutory laws enacted by the Central Govt. as well as State Govt.
8. No residential accommodation shall be provided to any of the staff engaged by the Agency. The Agency shall not be allowed to erect any temporary setup for staff on the campus.
9. No claims of the labours shall be entertained by the Department including that of providing employment, regularization of services, etc.
10. The Agency shall have registration with Employee's Provident Fund commission and Employee's State Insurance Corporation for the safe guarding interest of his workmen. He shall obtain all other necessary approvals from statutory bodies as per the law in vogue.
11. The Agency shall take immediate action to attend to any complaint assigned to him through the site order book/verbal instructions from Engineer-in-Charge or his representative over telephones from occupants. In all cases, he shall attend to the complaints in the specified duration as mentioned below.
12. All dismantled material will be removed from the site by Agency after duly verification and measurement of the same by JE/AE and EE.
13. The Agency shall make all safety arrangements required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise shall remain with the Agency. The department shall not be responsible for any mishap, injury, accident, or death of the Agency's staff. No claim in this regard shall be entertained/accepted by the department. Also, Agency is responsible for the damage caused to any man/material other than his team during execution, and AIIMS will not be responsible for that.

14. The agency shall be fully responsible for any damages caused to govt. property by his or his labour incurring out the work and shall be rectified by the Agency at his own cost.
15. GST and other Taxes as applicable shall be recovered/paid from the Agency's bill as per Govt. of India/AIIMS Rules.
16. The agency shall restore back the premises and other articles provided by the department to the department at the time of closure of the contract.
17. No permanent/temporary huts /structures shall be constructed by the Agency at the site of work or at any government land/premises. Such structures, if any, found at the site or at AIIMS Bhubaneswar land shall be demolished and removed at the cost of the agency without any notice.
18. Any damage to the building structure, fittings, or any other articles, etc. done by the Agency on his workman during the execution of the work shall be made good by the Agency at his own cost.
19. The Agency shall clear the site property after the completion of the work.
20. Major/Minor complaints shall be decided by the EE/Engineer-in-charge. The decision of the Engineer-In-charge shall be final & binding.
21. Any facility not mentioned in this scope, but which is vital **"Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar."** are assumed to be included in the scope of work.
22. The agency has to ensure safety and provide adequate supervision/precautions during the work.
23. During working at the site, any Rules/restrictions may be imposed by the Engineer-in-Charge/Security staff of the Corporation or Local Authorities regarding safety and security, etc., the Agency shall be bound to follow all such restrictions/instructions & nothing extra shall be payable on this account & no claim for delay on this account shall be entertained.
24. **The tender shall be based on the Conditions of Contract and tenderers are required to quote their %rates against BOQ items in a schedule of quantities, which is enclosed. All rates shall remain firm for the additional quantity in the contract period.**
25. If the Agency fails to proceed with the work within the stipulated time as specified from the date of issue of the letter of intent/letter to proceed with the work, the Department shall forfeit the earnest money deposited by him along with the tender.
26. All the works are to be carried out in accordance with the latest CPWD/BIS Specifications and as per the directions of the Engineer-in-charge.
27. **Packing:** The supplier shall provide such packing of the goods, as is required to prevent their damages or deterioration during the transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit.
28. **DRAWING AND SPECIFICATIONS**

A copy of tender documents and all relevant drawings and specifications viz. Indian standards, latest CPWD specifications, etc. shall be made available at the site if & when asked for a reference.
29. **COST OF TESTS**

The cost of preparing samples and carrying out tests for the quality of material or workmanship will be borne by the Agency except for such exclusions as are specifically mentioned in the specifications laid down in the contract. The cost of all tests carried out by Laboratories directed by the Engineer-in-Charge will be borne by the Agency.

30. The work shall be carried out strictly as per the attached technical specifications, relevant IS specifications, Indian Electricity Rules & National Electrical Code.
31. The Agency has to get approved all the material from the Engineer-in-Charge before its actual use at the site of work.
32. The scope of work includes all minor building works required for execution work such as cutting of walls etc. and making good the same. Nothing extra will be paid to Agency for the same.
33. The watch and ward of material and installation shall rest on the part of the Agency during the execution of work and till handing over of the same after completion of work in accordance with the schedule of work.
34. The Agency will take care of the building etc. while handling/installing the equipment to avoid damage to the building. If any damages occur during the execution of work, it shall be made good by Agency without any extra cost.
35. Existing materials in good condition may be used after joint inspection by AIIMS representatives & vendors.
36. Dismantled/unused materials are to be deposited at Engineering Dept. by the Firm.
37. The vendor shall submit color photographs printed with glossy paper for showing different stages of work during the submission of the final bill.
38. All electrical works are to be done as per I.E rule 1956.
39. **Warranty/Guarantee: The warranty/Guarantee certificate shall be provided as per manufacture standard norms.**
40. All safety appliances like Safety shoes, Safety gloves, Safety helmets, Safety belts, Safety goggles, etc. shall be arranged before starting the job.
41. The tender shall be based on the Conditions of Contract and tenderers are required to quote their own rates against each item in schedule of quantities (B.O.Q), which is enclosed. All rates shall remain firm for the contract period/extended contract period.
42. Site engineer as per clause 36 (i) of Proforma of Schedules shall be deployed at site for supervising the day-to-day maintenance.

GENERAL CONDITIONS FOR SUPPLY OF MATERIALS:

1. The sample of all the items shall have to be got approved by the Agency by the Engineer-in-Charge/Executive Engineer or his Representative before the supply commences. The approval of the sample shall be only in respect of workmanship and finish and shall be without prejudice to the right of the Engineer-in-Charge to get random samples tested out of the actual lot received as per additional conditions. This decision is the prerogative of the Engineer-in-Charge.
2. The Agency shall furnish the manufacture's certificate (if instructed) that the material supplied satisfies the requirements of the relevant specifications.
3. The Engineer-in-Charge shall be at liberty to test the respective sample(s) of each item from the schedule of quantity in any approved laboratory as decided by him. The sample for testing shall be provided by the Agency. The testing charge in respect of satisfactory tests shall be borne by the

Agency. All other expenditures required to be incurred for making available the sample conveyance and packing etc. shall be borne by the Agency himself. In case any sample of a particular lot fails in testing the Agency shall be bound to replace the entire lot with fresh material of prescribed specifications and the rejected lot shall only be returned to the Agency after the fresh lot is supplied.

4. After completion of work, the defective and damaged materials (Spare/Equipment/Scraps) shall be handed over to the AIIMS Authority or to be removed by the Agency at his own cost.
5. In case of any dispute regarding the rejection of the quantity of materials, the decision of the Engineer-in-Charge shall be final and binding upon the Agency.
6. Specialized services as indicated in the contract must be done through an authorized dealer or service Centre or manufacturer only. The Agency will submit the GST invoice for the equipments or spares purchased from the manufacturer or authorized dealer. Similarly, for services, the agency shall submit the service report from an authorized service Centre or dealer for processing the payment.

B. Special Condition :

The scope of the work is to provide Turnkey Solution that includes but is not limited to installation only. It should cover Supply, Installation, Implementation, Commissioning, Training, providing a user manual, providing 60 months Warranty for the total solution including all hardware, software, materials, services, and support etc. Which should provide an Integrated Video Surveillance System for the AIIMS Bhubaneswar campus.

All necessary cabling / wiring / sockets and allied infrastructure conforming to respective quality / standard norms are also included in the scope of this job. The bidders are advised to visit the mentioned sites before quoting the bid in the tender. Bidder shall be responsible for the following scope of services and shall be the Single Point of responsibility for the end user/client officials for the entire period of 5 years of DLP and warranty period.

1. Supply and Installation of the CCTV Surveillance System:

- I. Supply, install, testing, commissioning ,maintain, and provide warranty & related support services for hardware and upgrade/update/enhancement for system software, as detailed out in technical specifications, including related software, firmware, etc. for a period of 5 years from the date of commissioning for all supplied items at AIIMS site including additional material/hardware/software /services as may be required to be supplied without any additional cost.
- II. Any software and firmware upgrade/enhancement / engineering changes applicable to the hardware and software supplied should be provided for the warranty period within a period of one month from the date of release. All software should be a lifetime free license.
- III. Providing detailed architecture diagram of Test & Development, Quality, and Production environment setup for optimum performance, security, scalability, and desired uptime requirement. Should include all other supporting material as per the requirement to ensure smooth implementation. In that context, it is a 'turn - key' assignment.
- IV. The System Integrator will need to provide a detailed implementation plan including the architecture diagram, strategy, approach, and delivery of materials, specific issues, and their resolutions. Detailed implementation and post - implementation processes and procedures.
- V. Bidder has to provide the services for configuring and installing the hardware, deploying and installing the system software as per the requirements (porting of the application)/testing /integration of various

hardware and software, as may be needed at AIIMS Site without any additional cost for the period of 5 years from the date of installation for all supplied items.

- VI. Costs must include the cost of delivery at designated locations of AIIMS Bhubaneswar, transit handling and insurance, customs duties etc. as may be applicable. Taxes shall be included as in the financial bid and should include all applicable taxes as on the date of bidding. Taxes not quoted shall not be paid to the Bidder.
- VII. Provide on-site warranty support as stated in the Technical Specifications Warranty Clause for all the supplied items.
- VIII. Bidder has to ensure seamless integration of quoted Hardware & software products with applications and also has to provide the material/services which are not mentioned in tech specification but required to complete the turnkey solutions without any additional cost invariably.
- IX. The installation must be done directly by OEM or directly by their authorized partner/reseller/system integrator, but the overall responsibility lies with OEM/bidder only.
- X. Bids shall be considered only in those cases where the bidder has quoted for the entire scope of the work.
- XI. The bidder has to submit the OEM compliance letter showing line-by-line compliance with the tender specification.**
- XII. Bidder has to submit the full compliance of the tender terms & conditions and scope of work.**

2. Overview and Ensuring Solution of CCTV Surveillance System:

- I. The CCTV Integrated Video Surveillance system shall be IP based & ONVIF System with a distributed architecture having a separate control room for viewing facility at AIIMS Bhubaneswar. Day and Night Surveillance Cameras shall be used at the required location. All the cameras should be capable to record all the activities even at zero light and if any hard disk was crashed/ defected then the bidder shall recover footage without data loss.
- II. The proposed Solution should allow AIIMS officials to centrally monitor its facilities. Any kind of configuration /setting done by the bidder without any cost.
- III. The Solution should capture, store, and analyze digital Video images with audio to enable central monitoring, increase operational efficiency, reduce liability, minimize risk, and secure people & property.
- IV. The system should be provided with weather proof IP cameras, lenses, housing & mountings to capture video with which, would be viewed & controlled through the Video Management Software, recorded, and stored.
- V. Supply, installation, testing & commissioning of 1 KVA UPS for the CCTV system in the field side rack where UPS supply is not available as directed by EIC. The 10 KVA UPS is to be installed at the CCTV Server room. The power supply of the UPS should be taken from the nearest Emergency DB and the non-UPS Rack power supply should be taken from UPS DB. Before the power supply is taken from DB, the agency should inform to AIIMS representative to take necessary permission.
- VI. The NVR shall make continuous recording of all cameras for 24 hrs x 7 days with hardware should have**

adequate storage for a period of 20 days. If necessary, additional storage in form of a hard disk drive shall be provided by the Bidder. Bidder should provide a Wireless mouse & keyboard for viewing & managing NVR/server/ workstation.

- VII.** Arranging tools, tackles, machinery, test instruments, consumables, skilled manpower, etc. complete in all respects for installation, testing, and commissioning of the system by the bidder.
- VIII.** On completion of the works and before the issue of the certificate of completion, the bidder shall provide inbuilt documents including manuals and operating instructions, software, software keys/passwords, and training to AIIMS personnel in all aspects of system design, theory of operation of equipment, functional details, trouble shooting and familiarization with systems as per the scope of work, etc.
- IX.** The intent of the specifications is to cover the turn key responsibility for :
 - (1) supply, installation, testing, and commissioning of CCTV IP-based security surveillance system and various sub-systems required to complete the system in all respect.
 - (2) The bidder shall submit the complete bill of materials, drawings(Softcopy and 3 sets Hardcopy), technical data, information, technical literature for operation and maintenance, and other details required to fully establish the capability and performance of the equipment.
- X.** The materials offered by the Bidder as covered under the specifications of this work shall be fully in Compliance with the requirements stated herein.
- XI.** The bidder has to lay a new OFC for the CCTV network Separately. This should be surveyed before bidding. The fiber cable laying through HDPE Pipe / Gi pipe as required in a 1-meter depth in underground. The cable route marker shall be installed at the ground as required without any extra charges as per the direction of Engineering in charge.
- XII.** The Bidder shall be responsible for providing all materials, equipment, installation/maintenance tools, and services as specified. The work and materials shall be in compliance with all applicable, statutory regulations and safety requirements applicable.
- XIII.** The interpretation of the AIIMS in respect of the scope, details, and services to be performed by the Bidder shall be binding upon the Bidder.
- XIV.** Applications of the proposed System include tracking movements/Verification and recognition, through high-quality images, of persons and Objects including vehicles. The recordings of the scene of the Jurisdiction shall be helpful in case of enquiries etc. in establishing the truth. If required for any incident, AIIMS has to rights to call the vendor & Vendor has to provide the event, time, day, Motion based, etc. Recording to AIIMS official.
- XV.** All T&P, Scaffolding ladders/Hydra, Electrical instruments/meters for maintenance, consumable and Contingent Articles required for the execution of the work shall be arranged by the Agency.
- XVI.** All required registers will be certified by Engineer-in-Charge and Executive Engineer duly marked in chronological order but the Agency will have to arrange all such registers/stationery etc. Nothing extra shall be paid on this account.

- XVII.** Chases, holes & drilling works, etc. shall be done using power-operated tools in the cost of the Contract. No extra will be paid for the same.
- XVIII.** The successful vendor shall submit a detailed acceptance test procedure designed to demonstrate compliance with contract requirements at least 2 weeks before the start of testing. This procedure is to be approved prior to the start of the testing.
- XIX.** After all components (Cameras, NVRs, NVMS data switches, etc.,) have been commissioned, the vendor shall verify the overall system performance as specified.
- XX.** Prior to system program commissioning, verify that each component has been installed according to the tender requirement and test, and bring on-line each component.
- XXI.** Notify the client in writing of the testing schedule so that operating personnel may observe the commissioning. As part of the commissioning exercise, the vendor shall document all commissioning information along with commissioning data sheets that shall be submitted before acceptance testing.
- XXII.** The vendor shall complete all testing, adjusting the focus, picture clarity, right field of view & depth of view of cameras, etc., configuring the camera & NVR sets, etc., before requesting the client for testing.
- XXIII.** CCTV control room, all equipment should be well-organized and operate correctly. need enough lighting for operators to use their equipment comfortably and multiple light sources designed for control centers to create consistent lighting throughout the room. The control room floor shall be Laminated interlocking Wooden Flooring. The false ceiling shall be: Material – Calcium silicate with grid system tiles ;. Two numbers of 4 TR precision air conditioner will be installed such way that it will work simultanously on/off automatically. SITC of Electrical Control Panel (Indoor) with Incommer MCCB of 125 Amp-01 no, Outgoing MCCB- 32 Amp-04 nos with digital Voltmeter and ammeter and indication lamp, CT &PT & suitable alluminium busbar and all connections as per requirement.Retrofit work for fixing of 125Amp MCCB in existing Emergency Pannel at nearest electrical room and SITC of 125 Amp MCCB (Make – L&T) .Power Cable . Supply & Laynig of 95 sqmm 3.5 core FRLS armoured cable with suitable cable tray from nearest Electrical room to the control room panel and end to end cable termination. Length of the cable appox 100 Meter. Supply & fixing of suitable size TPN DB with busbar arrangement and wiring for Power points, light points and fan points with suitable size FRLS cable and proper Conduit.
- XXIV.** Software should be able to trigger & pop-up Real-Time videos on the trigger of any Video Analytic Alarm. The software should be able to record for all the cameras with time stamping.
- XXV.** Drawings and Data Requirements to be submitted by the Bidder for the complete system like:
- Technical Architecture of the System.
 - Complete Bill of Quantity (BOQ)
 - Complete Data Sheet
 - Complete Material Specification
 - Video Management and Software specification

- Test Records and Commissioning Documents.
- Diagrams and Wiring connection.
- Operation and Maintenance Manual
- As-Built Drawings

XXVI. The AIIMS and its representative shall have the right to inspect and test each equipment at all stages of installation, testing, and commissioning of the system. During Site Acceptance Tests the performance of each equipment and system as a whole shall be measured and documented. Any failure/ equipment Switch over shall be documented. List of all equipment, spares/ components etc. shall be prepared. If during the 'Site Acceptance Test' any defect is noticed in the system, the Bidder shall rectify/ replace the same to the satisfaction of AIIMS at no extra cost.

XXVII. Training and Documentation:

Bidder shall provide complete technical documentation of hardware, related software, operating systems configurations, and customizations along with necessary diagrams. Bidder/SI Shall also provide project and design documentation. The documents shall include but not be limited to:

- Factory/ Site test certificates of various equipment supplied.
- Original Manufacturers manual and warranty cards.
- Installation certificates of all equipment, description of configuration profile as executed for different equipment.
- Troubleshooting chart for all equipment, Standard OEM checklist for installation, maintenance, etc., if any. Training documents.

System Integrator shall provide training for a minimum of 1-2 days of installation, configuration, commissioning, monitoring, and troubleshooting of various equipment like NVR, storage, Backup system, access associated software, etc. to AIIMS officials. The detailed contents, coverage, and Methodology for training will be decided mutually by the System Integrator and AIIMS.

- a) System Integrator is to provide course material for each trainee.
- b) Training shall be provided through OEM-certified professionals & or bidder only.

XXVIII. Testing & Commissioning:

Vendor shall submit their proposed test procedures for approval and shall not commence testing without such approval is given. The vendor shall also agree to demonstrate all the features as indicated in this Tender Document.

The vendor shall ensure that no tests are applied which may stress equipment above the limits for field-testing recommended by the manufacturer. The vendor shall be responsible for any damage to personnel or equipment resulting from improper test procedures. Defects due to poor workmanship revealed through field-testing, shall be corrected at the bidder's expense without affecting the completion of the project.

The vendor shall visually inspect all equipment for defects immediately results upon arrival at the site including those supplied by their sub-contractors. The bidder shall note that all the rates quoted by them shall include the testing charges for doing the tests for all the systems.

XXIV. GI Poles:

The GI poles shall be of at least 9mtr high. It shall be hot-dipped galvanized to with stand outdoor conditions. The necessary concrete support shall be provided below & above the ground. The pole shall be tapered while it going up & shall have a necessary provision to mount PTZ/Fixed cameras. Provision shall be made in civil works & also on the pole to allow cables to enter inside the pole for connecting the camera. The vendor shall ensure that no cables are visible outside.

XXIX. Scope of work for during DLP and warranty period :

1. The agency shall be solely responsible for comprehensive maintenance and up keep the system in good condition. The CMC will includes (1 year DLP + 4 year CMC) for highend & low end equipments.
2. Half-yearly preventive maintenance service be done as per the maintenance schedule.
3. The preventive maintenance shall be prepared and submitted in advance to the EIC by the Agency. The necessary shutdown may be taken with the prior permission of the Engineer-in-Charge.
4. The unlimited breakdown service calls shall be attended as and when required in free of cost. The maintenance work should be carried out without hampering the intercom service.
5. The machines will be kept under working conditions throughout the year except for certain eventualities (including but not limited to acts of God, epidemics, acts of Government, War, Civil commotion, and terrorism. misuse of equipment with proper justification, public strike, failure of incoming power supply, fire, flood, adverse climate conditions, or natural disaster) of the service provider.
6. All major and minor jobs including turnkey-based full-phased maintenance jobs are responsibilities of the bidder.
7. The tools and tackles for the maintenance job will be provided by the agency at the site.
8. The scope of a comprehensive maintenance contract (CMC) for CCTV shall include all types of maintenance, repair, spares, consumable items, software, and support services to keep the system fully operational.
9. If any damage will occurs in the system during the maintenance work shall be rectified immediately by the agency. No extra cost will be paid for this.
10. The service engineer deputed by the agency shall be well-qualified and have enough knowledge in the field of IP-based CCTV Systems.
11. The agency shall submit a service report to the Engineer- in-charge after completion of the preventive maintenance and as well as break down maintenance.
12. The Warranty / Guarantee of new spare items installed against the faulty/damaged spares shall be covered.

13. If the bidder fails to give service, then legal action will be initiated against the agency as per rule and work will be done by encashing their SD.
14. **Schedule of Attendance of complaints: -**
 - a) In case of breakdown – within 4 hours call should be attained (Subject to complain logged between 9:00 am to 6:00 pm, Monday to Saturday baring national/holiday)
 - b) The agency shall respond to all calls and provide 7 x 24 hours and 365 days emergency service failing then legal action will be initiated against the agency as per rule and work will be done by encashing their SD amount by the Engineer-in-charge in this contract.
 - c) If the hardware failure is detected, then the same will be rectified within 72 hours failing then legal action will be initiated against the agency as per rule and work will be done by encashing their SD amount by the Engineer-in-charge in this contract.
 - d) If the software failure is detected, then the same will be rectified within 24 hours failing then legal action will be initiated against the agency as per rule and work will be done by encashing their SD amount by the Engineer-in-charge in this contract.
15. All repairs/replacement/servicing/fixing of the entire CCTV system shall be carried out only by the contractor / Bidder. AIIMS Bhubaneswar shall not permit or allow any other party other than the authorized contractor / successful tenderer to handle or deal with the equipment.
16. Repair/replacement/servicing shall mean system testing, repair, and maintenance of the entire/total equipment for the proper functioning of the CCTV system. The CAMC includes repairing & maintenance of CCTV cameras, NVR, network switches, UPS, display, and other associated items e.g. connectors, Ethernet / Optical fiber cable, Power cable, HDPE pipe, etc., or any other item included in the CCTV system. The CAMC charges should include the expenses for preventive maintenance and routine check-up and attending to breakdown calls as and when required.
17. The contract is comprehensive and includes replacement, fitment, maintenance, and repair of all types of spare parts (Components/printed circuit board /power supply units/connectors & Electronics sub-systems, etc.), for replacement of defective parts and repair of the existing CCTV system and all related items. No extra charges will be payable by AIIMS on account of spares.
18. any modification of software/ software upgradation for the change in class of service and to provide same additional facilities within the existing software provided in the system shall be covered under DLP and warranty period of total 5 years.
19. Cleaning of CCTV camera and its associated equipment in the project/units, periodically / as and when required so that the performance of system is not deteriorated on this account, is in the scope of CAMC/Warranty.
20. The Agency shall be solely responsible for the maintenance and upkeep of the equipments in good condition.

21. The preventive maintenance schedule shall be prepared and submitted in advance. The necessary shutdown may be taken with the prior permission of the Engineer-in-Charge.
22. A suitable complete shutdown shall be given once in a year for preventive maintenance of the complete system. All the equipment should be thoroughly checked and maintained for proper functioning/operations of the equipment.
23. The Agency shall keep himself fully informed of all acts and laws of the Central and State Govt., all orders, decrees of statutory bodies, and tribunals having jurisdiction or authority, which in any manner may affect their engaged or employed staff and anything related to carry out the work. All the rules and regulations and bye-laws laid down by the local bodies and any other statutory bodies shall be adhered to, by the Agency, during the execution of work.
24. In case of any fault in the installation covered under this work requiring immediate rectification of the same to put the installation in running condition, the firm has to rectify the fault and if any material is required in doing so, shall also arrange the same within a reasonable time.
25. The agency shall keep minimum spare and consumable materials at his custody for maintenance and attended the breakdowns.
26. Round the clock i/c watch and ward of the equipment shall be the Agency's responsibility and any losses and damage to the equipment shall have to be made good / repaired/replaced as per the original standards /specification of the department, by the Agency at his own cost and nothing extra shall be paid by the department.
27. **ID Pass:** The Contract shall issue the ID cards of the selected manpower before the start of the work.
28. The employees for the Agency shall be of good character and of sound. The service provider shall ensure proper conduct of its personnel in office premises, and enforce the prohibition of consumption of alcoholic drinks / drugs, shewing of pan / Gutkha, smoking, using speakers for listening to music, and loitering without any work. The workers should not be below the age of 18 years.
29. Transportation of labour and material to AIIMS, Bhubaneswar premises shall have to be borne by the Agency.
30. In case of faults/repairs/damages, the Agency should immediately submit a detailed fault analysis report, citing details of the repair/rectification schedule with details of probable completion to the EE(E). which will be executed after due approval of EIC.
31. On completion of the replacement of spares before the commission of the system, the replacement shall be physically checked and properly tested. These checks and tests shall be conducted by the agency under the supervision of AIIMS, Bhubaneswar and the agency shall furnish the final test result. The maintenance and operation of work shall be done as per rules and specifications of CPWD and as per I.E. Rules & Acts, amended up to date.

**Executive Engineer (Elect.)
AIIMS Bhubaneswar**

GENERAL TECHNICAL SPECIFICATIONS OF ELECTRICAL WORK

1. STANDARDS AND CODES.

The latest up-to-date Indian Standard (IS) and Code of practice will apply to the equipment and the work covered by the scope of this contract. In addition, the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended Up To Date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and/or IEC Standards shall be applicable.

2.0 INSPECTION.

All cables shall be inspected at the site and checked for any damage during transit.

2.1 JOINTS IN CABLES

The Agency shall take care to see that the cables received at the site are apportioned to various locations in such a manner as to ensure maximum utilization and avoiding of cable joints. This apportioning shall be got approved by Engineer-In-Charge before the cables are cut to lengths.

3.0 LT CABLES

3.1 GENERAL

LT Cables shall be supplied, inspected, laid, tested, and commissioned in accordance with specifications, relevant Indian Standards Specifications, and cable manufacturer's instructions. The cable shall be delivered at site in original drums with the manufacturer's name clearly written on the drums. The recommendations of the cable manufacturer with regard to jointing and sealing be strictly followed.

3.2 MATERIAL

The L.T. Cables shall be XLPE insulated FRLS aluminum conductor armoured cable, PVC inner sheathed, and overall PVC sheathed in conformity to the latest technical specification and as per the latest IS code.

3.3 LT CABLE LAYING

- 3.3.1. The cable shall be laid directly in a cable tray clamped with 40mm x 3mm MS flat clamp, in HDPE pipe below 750 mm from ground level and in a cable trench. The cable laying work will be done as per CPWD specification of electrical works.

3.3.2. Underground Cable Laying procedure

A trench of about 1.5 meters deep and 45 cm wide is to be dug as per required. Then the trench is to be covered with a 10 cm thick layer of fine sand. The cable is to be laid over the sand bed. The sand bed protects the cable from the moisture from the ground. Then the laid cable shall again be covered with a layer of sand of about 10 cm thick. When multiple cables are to be laid in the same trench, a horizontal or vertical spacing of about 30 cm is to be provided to reduce the effect of mutual heating. Spacing between the cables also ensures a fault occurring on one cable does not damage the adjacent cable. The trench is then to be covered with bricks and soil to protect the cable from mechanical injury.

3.4 INSPECTION.

All cables shall be inspected at the site and checked for any damage during transit.

3.5 JOINTS IN CABLES

The Agency shall take care to see that the cables received at the site are apportioned to various

locations in such a manner as to ensure maximum utilization and avoiding of cable joints. This apportioning shall be got approved by Engineer-In-Charge before the cables are cut to lengths.

4.0 TESTING OF CABLES

4.1 Prior to the installation of cables, the following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

- a) Before laying
- b) After laying
- c) After jointing

4.2 On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer-in-Charge.

- a) Insulation Resistance Test (Sectional and Overall).
- b) Continuity Resistance Test.
- c) Earth Continuity Test.

4.3 All tests shall be carried out in accordance with the relevant Indian Standard code of practice and Indian Electricity Rules. The Agency shall provide the necessary instruments, equipment, and labour for conducting the above tests & shall bear all expenses of conducting such tests without any extra charge.

5. **WIRES:** Wiring shall be carried out with FRLS insulated 660/1100-volt grade unsheathed single core wires with electrolytic annealed standard copper (unless otherwise stated) conductors conforming to the latest IS Code. All wire rolls shall be ISI marked. All wires shall bear the manufacturer's label and shall be brought to the site in new and original packages. Manufacturer's certificate, certifying that wires brought to the site are of their manufacture shall be furnished as required.

6. EXPANSION JOINTS.

When crossing through expansion joints in buildings, the conduit sections across the joint shall be through approved quality heavy duty mentally flexible conduits of the same size as the rigid conduit. The expansion joint crossing shall be done as approved by Engineer-in-Charge.

7. LOOP EARTHING.

Loop earthing shall be provided by means of insulated stranded copper conductor wires of sizes as per the Schedule of Quantity laid along with wiring inside conduits for all wiring outlets. Earthing terminals shall be provided inside all switch boxes, outlet boxes and draw boxes, etc.

8. PERFORMANCE.

Should the above tests not comply with the limits and requirements as above the Agency shall rectify the faults until the required results are obtained. The Agency shall be responsible for providing the necessary instruments and subsidiary earth for carrying out the tests. The above tests are to be carried out by the Agency without any extra charge.

9. MINIATURE CIRCUIT BREAKERS.

The MCB's shall be of the completely moulded design suitable for operation at 240/415 Volts 50 Hz system. The MCB's shall have a rupturing capacity of 10 KA at 0.5 pf. The MCB's shall have inverse time delayed thermal overload and instantaneous magnetic short circuit protection. The MCB time current characteristic shall coordinate with XLPE cable characteristic. Type test certificates from independent authorities shall be submitted with the RA bill.

Annexure – V

Technical Bid (Eligibility Criteria)

The scanned copies of the following mandatory documents to be uploaded on e-Tendering Portal in the following format.

Sl. No.	Details/ Particulars	Uploaded (Yes/No)	Page No.
(A)	Submitting Earnest Money Deposit.		
(B)	FROM 'A to F' duly filled in and signed with stamp.		
(C)	Certificates of Work Experience to be issued by the officer of the rank not below Executive Engineer.		
(D)	Certificate of Registration for GST and acknowledgement, up to date filed return if required		
(E)	Attested Copies of PAN No.		
(F)	Copies of IT return last 3 Years.		
(G)	Copies of ESI Registration (enclose latest challan copy)		
(H)	Copies of EPF Registration. (enclose latest challan copy)		
(I)	The Bidder(s) should have their Registered Office/Branch in Bhubaneswar. If not, an Office should be opened in Bhubaneswar within 30 (Thirty) Days of the award of Work. Details of Address Proof of Office located at Bhubaneswar should be given to EE(Elect.)		
(J)	Declarations to be given by the Tenderer(s) (as per Page 11).		
(K)	Profit/Loss : The bidder should not have incurred any loss (Profit after Tax should be positive) in more than two years during available the last five consecutive balance sheet , duly audited and certified by Chartered Accountant.		
(L)	Each page of the e-tender documents should be duly signed with seal otherwise the bid shall become invalid.		
(M)	OEM/OEM Authorized dealer. (Appendix- A)		
(N)	Affidavit as per Annexure – I		
(O)	Technical Specification Compliance Sheet shall be complied by the concerned OEM letterhead		

Annexure – VI**AFFIDAVIT**

(To be submitted on Rs. 100/- Indian Non-Judicial Stamp Paper)

I/We hereby certify that the above firm has not been ever blacklisted by any Central/State Government/Public Undertaking/Institute on any account.

I/We also certify that the Firm will supply the item(s) as per the specification given by Institution and also abide by all the Terms & Conditions stipulated in the Tender.

I/We also certify that the information given in Bid is true and correct in all aspects and in any case at a later date, it is found that any details provided are false and incorrect, any contract given to the concerned firm or participation may be summarily terminated at any state, the firm will be blacklisted and Institute may impose any action as per e-Tender Rules.

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

Business Address: -

Place: _____

Name:

(Signature of Bidder with Firm's Seal)

Dated: _____

Annexure – VII

FORM OF PERFORMANCE SECURITY (BANK GUARANTEE)

1. In consideration of the Executive Director, AIIMS, Bhubaneswar (hereinafter called “the Government”) having offered to accept the terms and conditions of the proposed agreement between and (hereinafter called “the said Agency(s)”) for the work (hereinafter called “the said agreement”) having agreed to the production of an irrevocable Bank Guarantee for Rs. (Rupees only) as a security/ guarantee from the Agency(s) for compliance of his obligation in accordance with the terms and conditions in the said agreement.

I/We (hereinafter referred to as Bank) hereby (Indicate the name of the Bank) undertake to pay to the Government an amount not exceeding Rs. _____ (Rupees _____ only) on demand by Government.

2. I/We do hereby undertake to pay the (Indicate the name of the Bank) the amount due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Agency(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees _____ only).

3. I/We the said bank undertakes to pay to the Government any money so demanded not withstanding any dispute or disputes raised by the Agency (s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

4. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the Agency (s) shall have no claim against us for making such payment.

5. I/ We further agree that the guarantee herein contained (Indicate the name of Bank) shall remain in full force and effect during the period that would be taken for the performance of the said agreement and it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid, and its claims satisfied or discharged, or till Engineer-in- charge on behalf of the Government, certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Agency (s) accordingly discharges this guarantee.

6. I/We further agree with the Government that the (Indicate the name of Bank) Government shall have the fullest liberty without our consent, and without affecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Agency(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Agency (s) and to forebear or enforce any of the terms and conditions relating to the said agreement & we shall not be relieved from our liability by reasons of any such variation or extension being granted to the said Agency (s) or for any forbearance, act of omission on that part of the Government or any indulgence by the Government to the said Agency (s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

7. The guarantee will not be discharged due to the change in the constitution of the Bank or the Agency (s). We lastly undertake not to revoke this (Indicate the name of Bank) guarantee except with the previous consent of the Government in writing.

8. This Guarantee shall be valid up to _____ unless extended on demand by Government, notwithstanding anything mentioned above, our liability against this Guarantee is restricted to Rs. _____ (Rupees _____ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this Guarantee all our liabilities under the Guarantee shall stand discharged.

Dated the _____ day of _____ for _____

Annexure – VIII

Format for Agreement

(To be made on Rs 100/- Judicial Stamp Paper)

This Agreement is made at.....on this.....day of..... 2023.

BETWEEN

Executive Director, AIIMS, Bhubaneswar represented through Executive Engineer (Electrical), AIIMS, BHUBANESWAR,, (Hereinafter referred to as the) (Address)

“**Principal/Owner**”, which expression shall unless repugnant to the meaning or context hereof include its success or sand permitted as signs)

AND

..... (Name and Address of the Individual/firm/Company) through..... (Hereinafter referred to as the (Details of duly authorized signatory)

“**Bidder/Contractor**” and which expression shall unless repugnant to the meaning or context hereof include its success or sand permitted as signs)

Preamble

WHEREAS, the Principal/Owner has floated the **Tender (NIT No. AIIMS/BBSR/ENGG/ELECT/24/2023)** (here in after refer red to as “**Tender/Bid**”) and intends to award, under laid down organizational procedure, contract for: “ Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the Land, Rules & Regulations, Economic use of resources, and fairness/ transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose afore said both the parties have agreed to enter to this Agreement (hereinafter referred to as “**Pact**”), the terms and conditions of which shall also be read as an 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.

1. The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

(a) 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.

(b) 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 processor the Contract execution.

(c) The Principal/Owner shall endeavor 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 offense under the Indian Penal Code (IPC)/Prevention of Corruption Act, 1988 (P C 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 standard and makes, 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) commit himself to taking 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 what so ever 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 offense 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 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 participates 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 offenses outlined above or be an accessory to such offenses.

4. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice **means a willful misrepresentation or omission of facts or submission of fake/forged**

documents in order to induce a public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to a 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 be fall 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 the execution of the 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 power 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 before vigor for a limited period as decided by the Principal/Owner.**

2. **Forfeiture of 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 Contractor 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 Performance Guarantee and Security Deposit of the Bidder/Contractor.

3. **Criminal Liability:** If the Principal/Owner obtains knowledge of the conduct of 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 the 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 05 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 an incorrect statement on this subject, he can be disqualified from the Tender processor action 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 Bidders/Contractors/Sub-contractors.

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-contractors a commitment in conformity with this 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 Bidders and Contractors.
3. The Principal/Owner will disqualify Bidders, 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.

1. This Pact begins when both parties have legally signed the edit. It expires for the Contractor/Vendor 12 months after the completion of work under the contract till the continuation of the defect liability period, whichever is more, and for all other bidders, till the Contract has been awarded.
2. 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, AIIMS, Bhubaneswar.

Article - 7: Other Provisions.

1. This Pact is subject to Indian Law, place of performance and jurisdiction is the **Bhubaneswar** of the Principal/Owner, who has floated the Tender.
2. Changes and supplements need to be made in writing. Side agreements have not been unmade.
3. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partners holding power of attorney signed by all partners and consortium members. In the 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 turnout 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 intentions.
5. It is agreed to terms and conditions that any dispute or difference arising between the parties with regard to the terms of this Agreement/Pact, any action taken by the Owner/Principal in accordance with this **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 Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Pact.

Article – 9: Terms And Conditions of Payment

The Running payments for the work shall be released **as per the actual measurement of the work executed at the site** by AIIMS, Bhubaneswar

- (i) Measurement Sheet
- (ii) Delivery Challan of all the material supplied.
- (iii) Test Certificate of Equipment.
- (iv) Warranty/Guarantee Certificate if applicable.
- (v) GST return up-to-date Voucher.
- (vi) Color Photos for Executed work on glossary paper.

(vii) No claim certificate (Final bill).

- a. The Security Deposit @ 2.5% of the gross amount of the bill shall be deducted from the running bills, which shall be released after the successful completion of the warranty period from the date of completion of work, without any interest thereupon.
- b. The Income Tax as application shall be deducted from the bills unless exempted by the Income Tax Department.
- c. In case of any failure of / delay in services, the penalty shall be invoked as per Clause-2 of GCC of CPWD works-2023.
- d. All melba/rubbish/waste, garbage, etc generated due to any work by the agency, the same shall be disposed of by the Agency to the authorized municipal dumping ground and nothing extra shall be paid on this account. In case of non-removal/disposal in the specified period, a compensation of ₹ 1000/- (Rupee One Thousand only) per day shall be recovered from the Agency.
- e. The agency shall submit the final bill along with all the documents related to all schedule registers, documents, etc. related to the work.
- f. 1% of labour cess will be deducted from bills.

The other terms and conditions are stated below: -

- (a) All the Terms & conditions of the Tender document will form as the part of this Agreement.
- (b) The agency shall be solely responsible for compliance to provisions of various Labour, Industrial, and any other Laws applicable and all Statutory Obligations such as Wages, Allowances, Compensations, EPF, Bonus, Gratuity, ESI, etc. relating to personnel deployed in AIIMS, Bhubaneswar. The client shall have no liability in this regard.
- (c) The Agency shall be solely responsible for any Accident/Medical/Health related Liabilities/Compensation for the personnel deployed at it at AIIMS, Bhubaneswar site. The Client shall have no liability in this regard.
- (d) Any violation of Instructions/Agreement or Suppression of facts will attract cancellation of Agreement without any reference or any notice period.
- (e) The Contract can be terminated by giving 01 (One) Month Notice by the AIIMS, Bhubaneswar.
- (f) In case of Non-Compliance with the contract, the Client reserves its right to: -
 - (i) Cancel/Revoke the contract; **and/or**
 - (ii) Impose a penalty up to 10% of the total Value of the Contract.
- (g) Performance Security of 3 % of the Annual Contract Value, whichever is higher in the form of a Fixed Deposit Receipt or Bank Guarantee form a scheduled Bank shall be furnished by the Agency at the time of signing of the Agreement.
- (h) There would be no increase in rates payable to the Agency during the Contract Period except any revision by the MoH & FW, Govt. of India.
- (i) The Agency also agrees to comply with the annexed Terms & Conditions of the Tender and amendments thereto from time to time.

- (j) The decision of the Client regarding the interpretation of the Terms & Conditions of the Tender shall be final and binding on the Agency.
- (k) The Agency shall ensure full compliance with the Tax Laws of India with regard to this contract and shall be solely responsible for the same. The Agency shall keep Client fully indemnified against liability of Tax, Interest, Penalty, and any other legal Liability, etc. of the Agency in respect thereof, which may arise. No Service Tax will be paid by AIIMS, Bhubaneswar. The Books of Accounts of the Agency, as regards this outsourcing work, shall be open for examination by the Institute as and when required.
- (l) In case of any dispute between the Agency and Client, the Client shall have the right to decide. However, all matters of jurisdiction shall be at the Local Courts of Bhubaneswar.
- (m) THIS AGREEMENT will take effect from the _____ day of _____ Month of _____ 2023 (Two Thousand Twenty-three)
- (n) This day of _____ 2022, both the parties here to have caused their respective common seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year mentioned above in Bhubaneswar in the presence of the witness: -
- (o) The vendor will be provide 1 year DLP period & 4 year warranty period (total 5 years) from the date of Completion of work and any extra charges not to be paid to vendor for the above period.

For and on behalf of the 'AIIMS, Bhubaneswar'

For and on behalf of the 'Agency'

Signature of the Authorized Official
(Name of the Official with Seal)

Signature of the Authorized Official
(Name of the Official with Seal)

By the said _____
_____(Name)
_____ on behalf of 'Agency'
in the presence of the Witness _____
Name _____
Address _____

By the said _____
_____(Name)
_____ on behalf of 'Agency'
in the presence of the Witness _____
Name _____
Address _____

Annexure – X

PROFORMA OF SCHEDULES**SCHEDULE 'A'**

Schedule of quantities : **Attached**

SCHEDULE 'D'

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

SCHEDULE 'E'

Reference to General Conditions of contract : CPWD General Conditions of Contract 2023 modified and amendment up to the last date of submission of tender.

Name of work : **Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system at AIIMS Bhubaneswar.**

Estimated cost of work : **Rs. 3,88,28,804**

(i) Earnest money : **Rs. 7,76,576**

(ii) Performance Guarantee : 3% of tendered value.

(iii) Security Deposit : 2.5% of tendered value.

SCHEDULE 'F'**GENERAL RULES & DIRECTIONS:**

Officer inviting tender : **Executive Engineer (Electrical), AIIMS Bhubaneswar on behalf of Executive Director AIIMS Bhubaneswar.**

Definitions:

2(v) Engineer-in-Charge : **Superintending Engineer, AIIMS Bhubaneswar (Odisha)**

2(viii) Accepting Authority : **Executive Director, AIIMS Bhubaneswar(Odisha)**

2(x) Percentage on cost of materials and labour to cover all overheads and profits.

: **NA**

2(xi) Standard Schedule of Rates

: **As per Market Rates**

2(xii) Department

: **Engineering Department, AIIMS Bhubaneswar.**

9(ii) Standard CPWD contract Form

: **GCC 2023 & CPWD Form-7/8 as modified & corrected up to the last date of receipt of Bid/tender.**

CLAUSE 1

(i) Time allowed for submission of Performance

Guarantee, programme chart

(Time and progress) and applicable labour

: **15 Days**

Licenses, registration with EPFO,

ESIC and BOCW welfare board or proof of applying

Thereof from the date of issue of letter of acceptance

(ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period Provided in (i) above : **15 Days**

CLAUSE 2

Authority for fixing compensation under clause 2 : Superintending Engineer / Executive Director, AIIMS Bhubaneswar.

Clause 2A

Whether Clause 2A shall be applicable :

NA

Time allowed for execution of work – 180 days.

Authority to decide:

(i) Extension of time : Superintending Engineer/ Executive Director
(ii) Rescheduling of mile stones : Superintending Engineer/ Executive Director, AIIMS Bhubaneswar
(iii) Shifting of date of start in case of delay in handing over of site : Superintending Engineer/ Executive Director, AIIMS Bhubaneswar

Clause 10A

Charge

: As required by Engineer -in-

Clause 10C

: Applicable

Clause 11

Specifications to be followed for execution of work

: **CPWD Specifications General Specifications for Electrical Works - Internal - 2005 with modification up to last date of tender submission.**

CLAUSE 12

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with

: **Yes**

CLAUSE 12.2&12.3

Type of work

: **Supply, installation, testing, and commissioning of IP-based CCTV Surveillance system**

12.2 & 12.3

Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work (Civil, E&M and Horticulture)

: **30%**

12.5

(ii) Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)

: **30%**

(iii) Deviation Limit for items mentioned in earth

work subhead of DSR and related items : 100%

CLAUSE 16

Competent Authority for deciding reduced rates. : Superintending Engineer/Executive Director, AIIMS Bhubaneswar

CLAUSE 18

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

: Applicable

CLAUSE 25

Constitution of Dispute Redressal Committee (DRC) : AIIMS, Bhubaneswar

CLAUSE 32

: Applicable

Requirement of Technical Representative(s) and recovery Rate

Sl 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 32(i)	
						Figures	Words
1	Graduate Engineer	Electrical /Electronic / IT	Project Manager	20 (and having experience of one similar nature of work)	ONE	Rs. 60,000/- PM	Rupees Sixty Thousand Per Month each
2	Graduate Engineer or Diploma Engineer	Electrical /Electronic / IT	Project/ Site Engineer	5 Or 10 respectively	ONE	Rs.25000/- PM.	Rupees Twenty five Thousand Per Month each

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10 year of relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Annexure – XI

TECHNICAL SPECIFICATION COMPLIANCE SHEET

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 01 : Network Video Recorder (NVR)			
Maximum IP Video Input	64 Channels		
Bandwidth Limitations	Incoming Bandwidth: 320 Mbps and Outgoing Bandwidth: 256 Mbps		
Video Output	2 x HDMI and 2 x VGA		
Resolution of HDMI	1 interface Upto 4K		
Resolution of VGA	Up to 2 MP		
Audio Output	2 Channel, RCA		
Two-way communication	shall support; 1 ch, RCA		
Decoding format	H.265+, H.265, H.264+, H.264		
Recording resolution	Maximum 12 MP resolution supported		
Synchronous Playback	up to 16 Channels		
IVS	Face Detection and Library face Comparison, Human Face Capture, Face Picture search		
Perimeter Protection	up to 4 ch 2 MP video analysis for human and vehicle recognition		
Remote Connections	128		
Network Protocol	TCP/IP, DHCP, IPv4, DNS, DDNS, NTP, RTSP, SMTP, SNMP, NFS, iSCSI, ISUP, UPnP, HTTP, HTTPS		
OnVIF	Shall support Profile S and G		
Network Interface	2 x RJ45, 10/100/1000 Mbps		
RAID Type	Support up to RAID 0, RAID 1, RAID 5, RAID 6, RAID 10		
Serial Ports	RS232, RS485		
Number of HDD Slots	Upto 8 SATA Interfaces		
HDD Capacity	Upto 10 TB Hard Disk for Each SATA		
eSATA	1 x eSATA Interface		
Alarm I/O	16/8		
USB	2 x USB2.0 and 1 x USB3.0		
Power Requirement	100 - 240 VAC		
Operating Condition	-10°C to 55°C		
Humidity	upto 90%		
Certification	Shall have CE, FCC, UL, and BIS certifications. Model-wise, series-wise details shall be available on the BIS website. The BIS certificate shall be in the name of the quoted OEM. Any third-party manufacturing or Joint Venture / Subsidiary-partnership manufacturing or contractual manufacturing will not be accepted.		

warranty	5 years		
The MAC address of the cameras must be registered in the name of OEM. If the MAC address does not match, it means that the device is not created by the original manufacturer, it's only an assembling or a labelling which has been done, and such party shall be immediately rejected.			
OEM shall be a Full member of ONVIF. For verification purposes, all the relevant details shall be available on the ONVIF website. The OEM shall give the declaration about its full membership. MAC address must be registered in the name of OEM.			
The OEM Shall offer ISO 9001:2015, ISO 14001:2015, ISO 27001: 2013, ISO 45000:2018 for their manufacturing process and also shall have CMMI level 5 certification to validate its performance across a range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity.			
OEM submit mandatory Manufacturer Authorization Certificates . OEM or its brand shall not have been blacklisted by any Government Organization in India.			
The CCTV OEM shall have its own online-dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India. The CCTV OEM should have a local registered branch office at Bhubaneswar for immediate support.			
Above compliance sheet shall be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit a Warranty and Test certificate mentioning the Serial No. of the respective products in OEM letterhead.			

Specification		Compliance (Yes/No)	Remarks (if any)
BOQ NO – 02 : Hard disk 10TB of CCTV surveillance			
Capacity	10TB		
Form Factor	3.5-Inch		
Connector	SATA		
Antarmuka	SATA		
Transfer Rate	up to 265MB/s		
Disk Speed (RPM)	7200 RPM		
Recording Technology	CMR		
Cache Size	256MB		
Dimensions (L x W x H)	147mm x 101.6mm x 26.1mm		
Weight	750gms		
Operating Temperature	0°C to 65°C		
Non-Operating Temperature	-40°C to 70°C		
Certifications	BSMI, ICES-003/NMB-003, CE, FCC, KC, Maghreb, RCM, UKCA, VCCI, CB-Scheme, TUV, UL		
Warrantee	5 years		
<ul style="list-style-type: none"> Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead. OEM submit mandatory Manufacturer Authorization Certificates. Above compliance sheet should be complied by OEM authorized person in OEM letter head. 			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
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Executive Engineer (Elect.)

AIIMS/BBSR/ENGG/ELECT/24/2023

(Signature of the Bidder with Seal)

BOQ NO – 03 : Dome Camera			
Image Sensor	1/2.7" Progressive Scan CMOS or Better		
Min. illumination	0.005 Lux @ F1.6, B/W: 0 Lux with IR		
Preferred recording Resolution	5MP (2560 X 1920) or better		
Day & Night	IR Cut Filter		
Shutter speed	1/3 s to 1/100,000 s		
WDR	120dB True WDR or better		
Lens type	2.8mm or better		
IR range	40m IR or higher		
Streaming Type	Shall Support three video streams.		
Video Compression	H.265,H.265+, H.264		
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC		
Image Enhancement	BLC, 3D DNR,120dB WDR, ROI (1 fixed regions for main stream).		
Image settings	Rotate mode, saturation, brightness, contrast, sharpness adjustable by client software or web browser		
Day/Night Switch	Day, Night, Auto, Schedule		
Network Protocol	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, Bonjour, IPv4, UDP, SSL/TLS, ONVIF(G,S,T)		
Simultaneous Live View	6 channel		
User Host	32 users. 3 user levels: administrator, operator and user		
Edge base Recording storage	Built-in memory card slot, support microSD card, up to 256 GB		
Preferable analytics features	Motion detection, video tampering alarm, Line crossing detection, intrusion detection.		
Event Alarm	Notify surveillance center, trigger recording, trigger capture, send email.		
Ethernet Port	1 x RJ45 10M/100M Ethernet port		
Audio interface	1x input & 1x output		
Alarm interface	1x input & 1x output		
General Function	Anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark, IP address filter.		
Power Supply	DC12V, PoE (802.3af, Class 3)		
Operating Conditions	-30° C ~ + 60° C		
Protection	IP67 & IK10 or Better.		
Certifications	Shall have CE, FCC, UL, BIS certifications Model wise, series wise details shall be available on the BIS website. The BIS certificate shall be in the name of the quoted OEM. Any third party manufacturing or Joint Venture / Subsidiary-partnership manufacturing or contractual manufacturing will not be accepted.		
Warranty	5 years		
The MAC address of the cameras must be registered in the name of OEM. If the MAC address does not match, it means that the device is not created by the original manufacturer, it's only an assembling or a labelling which has been done, and such party shall be immediately rejected.			
OEM shall be a Full member of ONVIF. For verification purposes, all the relevant details shall be available on the ONVIF website. The OEM shall give the declaration about its full membership. MAC address must be registered in the name of OEM.			
The OEM Shall offer ISO 9001:2015, ISO 14001:2015, ISO 27001: 2013, ISO 45000:2018 for their manufacturing process and also shall have CMMI level 5 certification to validate its performance across a			

range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity.		
OEM submit mandatory Manufacturer Authorization Certificates . OEM or its brand shall not have been blacklisted by any Government Organization in India.		
The CCTV OEM shall have own online-dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India. The CCTV OEM shall have local registered branch office at Bhubaneswar for immediate support.		
Above compliance sheet shall be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 04 : Bullet Camera			
Image Sensor	1/2.7" Progressive Scan CMOS or Better		
Min. illumination	0.005 Lux @ F1.6, B/W: 0 Lux with IR		
Preferred recording Resolution	5MP (2560 X 1920) or better		
Day & Night	IR Cut Filter		
Shutter speed	1/3 s to 1/100,000 s		
WDR	120dB True WDR or better		
Lens type	Varifocal - motorized lens 2.7mm~13.5mm or better		
IR range	60m IR or higher		
Streaming Type	Shall Support three video streams.		
Video Compression	H.265,H.265+,MJPEG		
Audio Compression	G.711ulaw/G.711alaw/G.722.1/G.726/MP2L2/PCM/AAC		
Image Enhancement	BLC, 3D DNR,120dB WDR,ROI (1 fixed regions for main stream).		
Image settings	Rotate mode, saturation, brightness, contrast, sharpness adjustable by client software or web browser		
Day/Night Switch	Day, Night, Auto, Schedule		
Network Protocol	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SMTP, IGMP, 802.1X, QoS, IPv6, Bonjour, IPv4, UDP, SSL/TLS, ONVIF(G,S,T)		
Simultaneous Live View	6 channel		
User Host	32 users. 3 user levels: administrator, operator and user		
Edge base Recording storage	Built-in memory card slot, support microSD card, up to 256 GB		
Preferable analytics features	Motion detection (with human & vehicle target classification), video tampering alarm, Line crossing detection, intrusion detection, region entrance detection, exiting detection, Face capture, scene change detection, object removal detection, Unattended baggage detection		
Event Alarm	Notify surveillance center, trigger recording, trigger capture, send email.		
Ethernet Port	1 x RJ45 10M/100M Ethernet port		
Audio interface	1x input & 1x output		
Alarm interface	2x input & 2x output		

General Function	Anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark, IP address filter.		
Power Supply	DC12V, PoE (802.3af, Class 3)		
Operating Conditions	-30° C ~ + 60° C		
Ingress Protection	IP67, IK10		
Certifications	Shall have CE, FCC, UL, BIS certifications Model wise, series wise details shall be available on the BIS website. The BIS certificate shall be in the name of the quoted OEM. Any third party manufacturing or Joint Venture / Subsidiary-partnership manufacturing or contractual manufacturing will not be accepted.		
Warranty	5 years		
The MAC address of the cameras must be registered in the name of OEM. If the MAC address does not match, it means that the device is not created by the original manufacturer, it's only an assembling or a labelling which has been done, and such party shall be immediately rejected.			
OEM shall be a Full member of ONVIF. For verification purposes, all the relevant details shall be available on the ONVIF website. The OEM shall give the declaration about its full membership. MAC address must be registered in the name of OEM.			
The OEM Shall offer ISO 9001:2015, ISO 14001:2015, ISO 27001: 2013, ISO 45000:2018 for their manufacturing process and also shall have CMMI level 5 certification to validate its performance across a range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity.			
OEM submit mandatory Manufacturer Authorization Certificates . OEM or its brand shall not have been blacklisted by any Government Organization in India.			
The CCTV OEM shall have own online-dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India. The CCTV OEM shall have local registered branch office at Bhubaneswar for immediate support.			
Above compliance sheet shall be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 05 : PTZ Camera			
Image Sensor	1/1.8" Progressive Scan CMOS or better		
Min. illumination	0.005 Lux @ F1.5, B/W: 0 Lux with IR		
Max. Image Resolution	4MP (2560 x 1440) or better		
Optical Zoom	32X or higher		
Digital Zoom	16X		
Focus Mode	Auto / Manual		
White Balance	Auto / Manual		
Day & Night	IR Cut Filter		
Privacy Mask	Shall support		
Image Enhancement	3D DNR, HLC, BLC, Digital Defog, 120dB WDR, Regional Exposure, Regional Focus.		
Range	Pan:360° endless; Tilt: -15°~90°(Auto Flip)		
Speed	Pan Speed (configurable) : 0.1°~160°/s, preset speed: 240°/s ; Tilt Speed (configurable) : 0.1°~120°/s, preset speed: 200°/s;		
Number of Preset	300		
Patrol	must be configurable		

Pattern	must be configurable		
Park Action	must be configurable		
Scheduled Task	must be configurable		
Smart analytics features	Preferable features - Motion Detection, intrusion detection, line crossing detection, Face Capture/Detection, Object removable detection, Region Entrance Detection, Region Exiting Detection		
Smart Tracking feature	Required		
IR Distance	200m or higher		
Alarm I/O	min. 2 in/1 out		
Audio Input / output interface	1-in / 1-out		
Ethernet port	1 x 10/100M Ethernet interface		
Streaming type	Camera shall offer three video streams (it shall be supported with independent resolution, bit rate and frame rates)		
Main Stream	25fps (2560 x 1440, 1920x1080, 1280x960, 1280x720);		
Sub Stream	25fps (704x576, 640x480, 352x288);		
Three Stream	25fps (1920x1080, 1280x960, 1280x720, 704x576, 640x480, 352x288);		
Compression format	Camera shall offer video compression of H.265, H.264, MJPEG		
Edge-base recording	Built-in memory card slot, support Micro SD/SDHC/SDXC, up to 256GB; NAS (NFS, SMB/ CIFS), ANR		
API	ONVIF		
Power supply option	24 VAC & Hi-PoE		
Working Temperature	-30°C ~ 65°C		
Humidity	90% or less		
Protection Level	IP67, IK10; TVS 6,000V lightning protection, surge protection		
Certification	Shall have CE, FCC, UL, BIS certifications Model wise, series wise details shall be available on the BIS website. The BIS certificate shall be in the name of the quoted OEM. Any third party manufacturing or Joint Venture / Subsidiary-partnership manufacturing or contractual manufacturing will not be accepted.		
Accessories	Bidder should supply PTZ with proper Mounting bracket & power supply.		
Warranty	5 years		
The MAC address of the cameras must be registered in the name of OEM. If the MAC address does not match, it means that the device is not created by the original manufacturer, it's only an assembling or a labelling which has been done, and such party shall be immediately rejected.			
OEM shall be a Full member of ONVIF. For verification purposes, all the relevant details shall be available on the ONVIF website. The OEM shall give the declaration about its full membership. MAC address must be registered in the name of OEM.			
The OEM Shall offer ISO 9001:2015, ISO 14001:2015, ISO 27001: 2013, ISO 45000:2018 for their manufacturing process and also shall have CMMI level 5 certification to validate its performance across a range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity.			
OEM submit mandatory Manufacturer Authorization Certificates . OEM or its brand shall not have been blacklisted by any Government Organization in India.			
The CCTV OEM shall have own online-dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India. The CCTV OEM shall have local registered branch office at Bhubaneswar for immediate support.			
Above compliance sheet shall be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 06 : 1/10G, L3, 24 port (12 Copper + 12 Fiber) Stackable L3 fully Managed switch			
Physical Interfaces	Minimum 12 # 1/10G Base-T Copper Ports and 12 # 1/10G Base-X Fiber SFP+ Ports		
	Must have Ethernet: Out-of-band 1G port, Console: RJ45 RS232, Console: Mini-USB, Storage: USB, 1U rack mount		
CPU/ Memory	Must have or better CPU: 800 MHz, RAM: 1 GB, Flash: 256 MB, Packet buffer memory: 32Mb		
Performance	Stack height: 8 switches, switching fabric: 480 Gbps Line-Rate (non-blocking fabric), Throughput: 357 Mpps		
	16K MAC addresses (48-bit MAC address), Number of VLANs: 4,093 (IEEE 802.1Q) simultaneously		
	Number of multicast groups= 2K IPv4, 2K IPv6, ARP/NDP= 888		
	Number of LAGs (802.3ad): 128 LAGs with up to 8 ports per group, Number of hardware queues for QoS: 8 (Standalone)		
	Minimum number of routes: 512 IPv4 routes, 256 IPv6 routes		
	Jumbo frame: 9K, sFlow=416 samplers, 416 pollers, 8 receivers		
	Mean time between failures (MTBF): 190000 hours or more		
L2 Services	Protocol based VLAN, IP Subnet, ARP, Subnet based VLAN, MAC based VLAN, Voice VLAN, Private Edge VLAN, Private VLAN, Guest VLAN, Double VLAN Tagging (QoQ), GARP with GVRP/GMRP, MVR (Multicast VLAN Registration), MRP, MVRP		
	LAG Hashing, LAG Member Port Flaps Tracking, UDLD support, Distributed Link Aggregation, Storm Control, Link Dependency, STP, PVSTP, PVRSTP, STP Loop Guard, STP Root Guard, BPDU Guard, IGMP v2/v3 Snooping support, MLDv1/2 Snooping Support		
L3 Services	IGMP Proxy, MLD Proxy, ASM, SSM, Multicast streams routing between subnets/VLANs, Multicast Static Routes (IPv4, IPv6), PIM-DM, PIM-SM, PIM multi-hop RP support, IPMC replication (hardware support)		
	DHCP Client and Server, DHCP Snooping, DHCP/ BootP Relay, Static Routing, ECMP Static Routing, Port based Routing, VLAN Routing		
	RIP v1 and v2, OSPF v2 and v3, OSPF Flood Blocking, Route Redistribution, VRRP, VRRP Route/Interface Tracking, Loopback Interfaces, Tunnel interfaces, Router Discovery, Proxy ARP, Multinetting, DNS, IP Source Guard		
QoS	IEEE 802.1p CoS, DiffServ QoS, WRED, Single Rate Policing, Strict Priority queue technology, Auto-VoIP, iSCSI Flow Acceleration, IP Precedence, Interface Traffic Shaping, PHB Support		
Security	CPU Protection, DoS attack protection, ICMP throttling, Management ACL, Dynamic ACL, Port Security, Dynamic ARP Inspection, MAC Filtering, Port MAC Locking		
Management	802.1ab LLDP and LLDP-MED, SNMP v1/v2/v3, RMON 1/2/3/9, Command Line Interface (CLI), Web-based graphical user interface (GUI), Admin access control via Radius and TACACS+, Telnet, Malicious Code Detection, SNTP, SSH v1/v2, Syslog, Persistent log supported		
Network Traffic	Access Control Lists (ACLs) L2 / L3 / L4, Time-based ACLs, ACL over VLANs, IPv6 RA Guard Stateless Mode, Network Authentication Successive Tiering, 802.1x MAC Address Authentication Bypass (MAB)		
LEDs	Per port: Speed, link, activity		
	Power, Fan, Stack Master, Stack ID		
Environmental	Operating Temperature: 32° to 122°F (0° to 50°C)		
	Operating Humidity: 90% maximum relative humidity, non-condensing		
Certifications	CE mark, FCC Part 15 Class A, VCCI Class A, EN 50082-1		

Executive Engineer (Elect.)

AIIMS/BBSR/ENGG/ELECT/24/2023

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	CSA certified (CSA 22.2 #950), UL listed (UL 1950)/cUL IEC 950/EN 60950		
Warranty	Lifetime Hardware Replacement Warranty, Lifetime free latest firmware support, 3 Years On Call Technical Support must be included, Replacement with New Product Only No refurbished Products.		
Above compliance sheet should be complied by OEM authorized person in OEM letter head. OEM submit mandatory Manufacturer Authorization Certificates			
Warranty declaration in OEM letterhead mentioning the product Model No			
Bid specific Malicious certificate			
Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website			
All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility			
Valid ISO certificate for OEM			
OEM must have research and development office in India			
At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead			
Product must be "Non made in China" as per land border clause by the Indian Govt.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 07 : 10G, L2+/L3, 16 ports SFP+ fully Managed switch (First 12 ports support 1G)			
Physical Interfaces	Minimum 16 # 10G Base-X Fiber SFP+ Ports		
	Must have Ethernet: Out-of-band 1G port, Console: RJ45 RS232, Console: USB-C, Storage: USB-A, 1U Rackmount		
CPU/ Memory	Must have or better CPU: ARM A9 1.25Ghz 32-Bit, 2GB RAM, Flash: 256 MB, Packet buffer memory: 16 MB		
Performance	Switching fabric: 320 Gbps Line-Rate (non blocking fabric), Throughput : Min. 238.08 Mpps, IP Multicast Routing Entries : 512 IPv4 & 128 IPv6, 16,000 MAC addresses (48-bit MAC address), Number of VLANs: 4,093 (IEEE 802.1Q) simultaneously, Jumbo Frames Up to 12K		
	Multicast IGMP Group membership : 2K IPv4 & 2K IPv6, DHCP Server: IPv4: 256 pools IPv6: 16 pools, 4K ARP/NDP, sFlow: 16 samplers, 16 pollers, 8 receivers, Software-controlled fan adjustments		
	static, RIP and PIM-SM, DM and SSM multicast routing, DHCP Server and Pv2 Transparent Clock, Auto-Trunk and Auto-LAG, Mean Time Between Failures (MTBF): 8,40,000 hours or more,		
L3 & L2 Services	Industry standard SNMP, RMON, MIB, AAA, sFlow, RSPAN and PTPv2, Voice VLAN with SIP, H323 and SCCP protocols detection, Number of IP interfaces 128, Multicast VLAN Registration Protocol (MVRP)		
	RIPv1/RIPv2, Policy Based Routing (PBR), 802.1x MAC Address Authentication Bypass (MAB), IEEE 1588 PTPv2, IEEE 802.1BA-2011 Audio Video Bridging (AVB), IGMPv3 MLDv2 Snooping, Proxy ASM & SSM		
	Control Packet Flooding, 802.1AS, 802.1Qav, 802.1Qat MSRP, 802.1ak MMRP, 802.1ak MVRP, Per VLAN Rapid STP (PVRSTP), BPDU/STRG Root Guard, VLAN routing, DHCP Relay, Stateful DHCPv6 Server		
QoS	IEEE 802.1p CoS, DiffServ QoS, WRED, Single Rate Policing, Strict Priority queue technology, Auto-VoIP, MAC ACL Support, IP Precedence, Interface Traffic Shaping, PHB Support		
Security	CPU Protection, DoS attack protection, ICMP throttling, Management ACL, Dynamic ACL, Port Security, ACL over VLAN, GVRP, Dynamic ARP Inspection, MAC Filtering, Port		

	MAC Locking		
Management	802.1ab LLDP and LLDP-MED, SNMP v1/v2/v3, RMON 1/2/3/9, Command Line Interface (CLI), Web-based graphical user interface (GUI), Admin access control via Radius and TACACS+, Telnet, Malicious Code Detection, SNTTP, SSH v1/v2, Syslog, Persistent log supported		
LEDs	Per port: Speed, link, activity		
	Per device: Power, Fan		
Environmental	Operating Temperature: 32° to 122°F (0° to 50°C)		
	Operating Humidity: 90% maximum relative humidity, non-condensing		
Certifications	CE mark, FCC Part 15 Class A, VCCI Class A,		
	UL listed (UL 1950)/cUL IEC 950/EN 60950, certificate IEC 62368-1		
Warranty	Lifetime Hardware Replacement Warranty, Lifetime free latest firmware support, 3 Years On Call Technical Support must be included, Replacement with New Product Only No refurbished Products.		
	<ul style="list-style-type: none"> Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates 		
	<ul style="list-style-type: none"> Bid specific Malicious certificate, 		
	<ul style="list-style-type: none"> Compliance in OEM letterhead, 		
	<ul style="list-style-type: none"> Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website, 		
	<ul style="list-style-type: none"> All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility, 		
	<ul style="list-style-type: none"> Valid ISO certificate for OEM 		
	<ul style="list-style-type: none"> OEM must have research and development office in India 		
	<ul style="list-style-type: none"> At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead 		
	<ul style="list-style-type: none"> Product must be "Non made in China" as per land border clause by the Indian Govt. 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 08 : 10/100/1000 8 port (all) PoE+ (240W) with 2 additional ports with 2 10G SFP+ Ports L2+ fully managed switch			
Physical Interfaces	Minimum 8 # 1G Base-T Copper PoE+ Ports, 02 # 1G Base-T Copper Ports, 2 # 10G Base-X Fiber SFP+ Ports		
	Must have Ethernet: Out-of-band 1G port, Console: RJ45 RS232, Console: USB-C, Storage: USB-A, 1U Rackmount		
CPU/ Memory	Must have or better CPU: ARM A9 1.25Ghz 32-Bit, 2GB RAM, Flash: 256 MB, Packet buffer memory: 16 MB		
Performance	Switching fabric: 60 Gbps Line-Rate (non blocking fabric), Throughput : Min. 44.64 Mpps, IP Multicast Routing Entries : 512 IPv4 & 128 IPv6, 16,000 MAC addresses (48-bit MAC address), Number of VLANs: 4,093 (IEEE 802.1Q) simultaneously, Jumbo Frames Up to 12K, 240W PoE Power Budget		
	Multicast IGMP Group membership : 2K IPv4 & 2K IPv6, DHCP Server: IPv4: 256 pools IPv6: 16 pools, 4K ARP/NDP, sFlow: 16 samplers, 16 pollers, 8 receivers, Software-controlled fan adjustments		
	static, RIP and PIM-SM, DM and SSM multicast routing, DHCP Server and Pv2 Transparent Clock, Auto-Trunk and Auto-LAG, Mean Time Between Failures (MTBF): 575000 hours or more		

L3 & L2 Services	Industry standard SNMP, RMON, MIB, AAA, sFlow, RSPAN and PTPv2, Voice VLAN with SIP, H323 and SCCP protocols detection, Number of IP interfaces 128, Multicast VLAN Registration Protocol (MVRP)		
	RIPv1/RIPv2, Policy Based Routing (PBR), 802.1x MAC Address Authentication Bypass (MAB), IEEE 1588 PTPv2, IEEE 802.1BA-2011 Audio Video Bridging (AVB), IGMPv3 MLDv2 Snooping, Proxy ASM & SSM		
	Control Packet Flooding, 802.1AS, 802.1Qav, 802.1Qat MSRP, 802.1ak MMRP, 802.1ak MVRP, Per VLAN Rapid STP (PVRSTP), BPDU/STRG Root Guard, VLAN routing, DHCP Relay, Stateful DHCPv6 Server		
QoS	IEEE 802.1p CoS, DiffServ QoS, WRED, Single Rate Policing, Strict Priority queue technology, Auto-VoIP, MAC ACL Support, IP Precedence, Interface Traffic Shaping, PHB Support		
Security	CPU Protection, DoS attack protection, ICMP throttling, Management ACL, Dynamic ACL, Port Security, ACL over VLAN, GVRP, Dynamic ARP Inspection, MAC Filtering, Port MAC Locking		
Management	802.1ab LLDP and LLDP-MED, SNMP v1/v2/v3, RMON 1/2/3/9, Command Line Interface (CLI), Web-based graphical user interface (GUI), Admin access control via Radius and TACACS+, Telnet, Malicious Code Detection, SNTp, SSH v1/v2, Syslog, Persistent log supported		
LEDs	Per port: Speed, link, activity, PoE		
	Per device: Power, Fan		
Environmental	Operating Temperature: 32° to 113°F (0° to 45°C)		
	Operating Humidity: 90% maximum relative humidity, non-condensing		
Certifications	CE mark, FCC Part 15 Class A, VCCI Class A,		
	UL listed (UL 1950)/cUL IEC 950/EN 60950, certificate IEC 62368-1		
Warranty and Support	Lifetime Hardware Replacement Warranty, Lifetime free latest firmware support, Replacement with New Product Only No Refurbished Products.		
	<ul style="list-style-type: none"> Warranty declaration in OEM letterhead mentioning the product Model No., OEM submit mandatory Manufacturer Authorization Certificates 		
	<ul style="list-style-type: none"> Bid specific Malicious certificate, 		
	<ul style="list-style-type: none"> Compliance in OEM letterhead, 		
	<ul style="list-style-type: none"> Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website, 		
	<ul style="list-style-type: none"> All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility, 		
	<ul style="list-style-type: none"> Valid ISO certificate for OEM, 		
	<ul style="list-style-type: none"> OEM must have research and development office in India, 		
	<ul style="list-style-type: none"> At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead 		
	<ul style="list-style-type: none"> Product must be "Non made in China" as per land border clause by the Indian Govt. 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 09 : 10/100/1000, L2+/L3, 24 PoE+(480W) and 2 additional ports with 4 Dedicated SFP+ 1G/10G ports switch			
Physical Interfaces	Minimum 24 # 1G Base-T Copper PoE+ Ports, 02 # 1G Base-T Copper Ports, 4 # 10G Base-X Fiber SFP+ Ports		
	Must have Ethernet: Out-of-band 1G port, Console: RJ45 RS232, Console: USB-C, Storage: USB-A, 1U Rackmount		
CPU/ Memory	Must have or beter CPU: Quad-Core Cortex-A57 ARMv8 1.8Ghz 64-bit, 2GB RAM, Flash: 256 MB, Packet buffer memory: 16 MB		

Performance	Switching fabric: 132 Gbps Line-Rate (non blocking fabric), Throughput : Min. 98.21 Mpps, IP Multicast Routing Entries : 512 IPv4 & 128 IPv6, 16,000 MAC addresses (48-bit MAC address), Number of VLANs: 4,093 (IEEE 802.1Q) simultaneously, Jumbo Frames Up to 12K, 480W PoE Power Budget or higher		
	Multicast IGMP Group membership : 2K IPv4 & 2K IPv6, DHCP Server: IPv4: 256 pools IPv6: 16 pools, 4K ARP/NDP, sFlow: 16 samplers, 16 pollers, 8 receivers, Software-controlled fan adjustments		
	static, RIP and PIM-SM, DM and SSM multicast routing, DHCP Server and Pv2 Transparent Clock, Auto-Trunk and Auto-LAG, Mean Time Between Failures (MTBF): 500000 hours or more		
L3 & L2 Services	Industry standard SNMP, RMON, MIB, AAA, sFlow, RSPAN and PTPv2, Voice VLAN with SIP, H323 and SCCP protocols detection, Number of IP interfaces 128, Multicast VLAN Registration Protocol (MVRP)		
	RIPv1/RIPv2, Policy Based Routing (PBR), 802.1x MAC Address Authentication Bypass (MAB), IEEE 1588 PTPv2, IEEE 802.1BA-2011 Audio Video Bridging (AVB), IGMPv3 MLDv2 Snooping, Proxy ASM & SSM		
	Control Packet Flooding, 802.1AS, 802.1Qav, 802.1Qat MSRP, 802.1ak MMRP, 802.1ak MVRP, Per VLAN Rapid STP (PVRSTP), BPDU/STRG Root Guard, VLAN routing, DHCP Relay, Stateful DHCPv6 Server		
QoS	IEEE 802.1p CoS, DiffServ QoS, WRED, Single Rate Policing, Strict Priority queue technology, Auto-VoIP, MAC ACL Support, IP Precedence, Interface Traffic Shaping, PHB Support		
Security	CPU Protection, DoS attack protection, ICMP throttling, Management ACL, Dynamic ACL, Port Security, ACL over VLAN, GVRP, Dynamic ARP Inspection, MAC Filtering, Port MAC Locking		
Management	802.1ab LLDP and LLDP-MED, SNMP v1/v2/v3, RMON 1/2/3/9, Command Line Interface (CLI), Web-based graphical user interface (GUI), Admin access control via Radius and TACACS+, Telnet, Malicious Code Detection, SNTp, SSH v1/v2, Syslog, Persistent log supported		
LEDs	Per port: Speed, link, activity, PoE		
	Per device: Power, Fan		
Environmental	Operating Temperature: 32° to 113°F (0° to 45°C)		
	Operating Humidity: 90% maximum relative humidity, non-condensing		
Certifications	CE mark, FCC Part 15 Class A, VCCI Class A,		
	UL listed (UL 1950)/cUL IEC 950/EN 60950, certificate IEC 62368-1		
Warranty and Support	Lifetime Hardware Replacement Warranty, Lifetime free latest firmware support, Replacement with New Product Only No Refurbished Products.		
	<ul style="list-style-type: none"> Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates. 		
	<ul style="list-style-type: none"> Bid specific Malicious certificate, 		
	<ul style="list-style-type: none"> Compliance in OEM letterhead, 		
	<ul style="list-style-type: none"> Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website, 		
	<ul style="list-style-type: none"> All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility, 		
	<ul style="list-style-type: none"> Valid ISO certificate for OEM, 		
	<ul style="list-style-type: none"> OEM must be present in India for at least 15 years or more, 		
	<ul style="list-style-type: none"> At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead 		
	<ul style="list-style-type: none"> Product must be "Non made in China" as per land border clause by the Indian Govt. 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 10 : 3M 10G cable SFP+ to SFP+ DAC			
10 Gigabit DAC	3M 10G cable SFP+ to SFP+ DAC		
	Make shall be same as Switches for the best compatibility		
Warranty and Support	5 Years Hardware replacement warranty		
	Replacement with New Product Only No Refurbished Products.		
Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates			
Bid specific Malicious certificate.			
Compliance in OEM letterhead.			
Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website.			
All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility.			
Valid ISO certificate for OEM.			
OEM must have research and development office in India.			
At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead			
Product must be "Non made in China" as per land border clause by the Indian Govt.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 11 : 10G Single Mode SFP+ Module			
SFP+ Module	10GBase-LR Fiber SFP+, LC duplex connector, 1310nm Wavelength		
	Data Link up to 10km for 9/125 um SMF, Single Mode Fiber, ROHS Compliant		
	Compliant with SFP+ Transceiver MSA specification		
	Compliant with Specifications for IEEE 802.3ae 10-Gigabit Ethernet Over Fiber		
	Compliant with Industry Standard RFT Electrical Connector and Cage		
	Make should be same as Switches for the best compatibility		
	Operating Temperature 32 -158° F (0 - 70°C)		
	Power Consumption <1.5w, UL 1950 CSA 22.2 No. 950		
Warranty and Support	5 Years Hardware replacement warranty		
	Replacement with New Product Only No Refurbished Products.		
<ul style="list-style-type: none"> Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates 			
<ul style="list-style-type: none"> Bid specific Malicious certificate, 			
<ul style="list-style-type: none"> Compliance in OEM letterhead, 			
<ul style="list-style-type: none"> Product's features must be mentioned in the OEM Datasheet, Datasheet must be available in OEM global website, 			
<ul style="list-style-type: none"> All active items such as Switches, DAC, Modules are must be from same/single OEM for the best compatibility, 			
<ul style="list-style-type: none"> Valid ISO certificate for OEM, 			
<ul style="list-style-type: none"> OEM must have research and development office in India, 			
<ul style="list-style-type: none"> At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead 			
<ul style="list-style-type: none"> Product must be "Non made in China" as per land border clause by the Indian Govt. 			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 12 : 6 Core SM armored FO cable			
The fiber shall be optimized for operation at 1310 nm and at 1550 nm.			
shall fulfill the requirements of ISO/IEC 11801 - 2nd Edition, type OS2, ITU-T REC G 652D spec IEC 60794-1-2 F5			
Fiber Count : 6			
Loose tube count :1			
Fiber count per tube :6			
Filler count :4			
Filler Material : PP			
Max. Attenuation: At 1310 nm \leq 0.36 dB/km, At 1550 nm \leq 0.22 dB/km			
Fiber/Tube Identification : Single Tube			
Fiber protection (Tubes) : Polybutylene Terephthalate (PBT)			
Armoring : CST			
Thickness: 1.6mm			
Outer Sheath :UV Stabilized Polyethylene (PE)			
Central Strength Member: Steel wire coated with PE			
Water Blocking : Thixotropic Gel (Tube);			
Petroleum Jelly (Interstices)			
Cable Diameter (D) : 9.0 ± 0.5 mm			
Mass (Nominal) : 91 kg/km			
Min. Bending Radius (during Installation) : 20 D;D-Outer Diameter			
Max. Tensile Strength-Short Term : 1500N			
Max. Crush Resistance-Short Term : 2200N/100 mm			
Operating Temperature range : -40°C to +70°C			
All the cable and accessories are from the same OEM			
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory			
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.			
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801			
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.			
All the products must have RoHS Compliance			
<ul style="list-style-type: none"> All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. Warranty declaration in OEM letterhead mentioning the product Model No. Compliance in OEM letterhead 			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 13 : UTP cable CAT6 A			
4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance.			
Category 6A Unshielded Twisted 4 Pair 100 Ω cable shall be compliant with ANSI/TIA/EIA-568-C.2; ISO/IEC 11801 Ed. 2.0; 10BASE-T, IEEE 802.3 af (PoE), 100BASE-T, IEEE 802.3at (PoE+) & 1000BASE-T			

Category 6A UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair. ISO/IEC 60332-1-2; IEC 60754-1 & 2; IEC 61034-2		
Conductor: Solid Copper		
Conductor Diameter: 0.56mm (23 AWG)		
Insulator HD Polyethylene solid		
Jacket: LSZH RoHS complied		
Outer Diameter: 8.0 ± 0.4 mm		
Max Temperature: -20°C to +75°C		
Mechanical Test		
Should have Pulling force of 100N.		
Bend Radius: Installation: $<4 \times$ Cable Diameter,		
Electrical Test		
D.C. resistance conductor : $<7.4\Omega / 100m$		
Resistance Unbalance 2% Max		
Mutual Capacitance : $< 5.6nF/100m$		
Capacitance Unbalance : 160pF/100m.		
Propagation Velocity : 64%		
ETL 4 port channel Test report should be submitted with 800 Mhz		
Should be ETL Certified		
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory		
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.		
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801		
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.		
All the products must have RoHS Compliance		
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 14 : UTP Patch cord CAT6 A (3Mtr)			
Patch Cord Length: 3 mtr			
Standardization: Compliant with Cat.6A, Class EA requirements: ISO/IEC 11801 2.1 Edition Compliant with Cat.6A component			
Cable shield: STP/UTP			
Number of conductors: 8			
Stranding: 7 x 0.16 mm (26 AWG)			
Cable jacket characteristics: cable, metal-free			
Cable overall diameter: 6.0 ± 0.2 mm			
Tube / Wire type: stranded conductor			
Insulation: foam skin, polyolefin, 0.98 ± 0.02 mm OD.			
Plug: Feature cable retention, with enhanced pull strength.			
Cat 6A patch cord plug to have round cable holder and strain relief boot to avoid bending.			
plug should have high repeatability cross talk performance			
Plug design should be patented with unique feature			

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AIIMS/BBSR/ENGG/ELECT/24/2023

(Signature of the Bidder with Seal)

Shall be ETL certified		
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory		
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.		
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801		
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.		
All the products must have RoHS Compliance		
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 15 : UTP Patch cord CAT6 A (1Mtr)			
Patch Cord Length : 1 mtr			
Standardization: Compliant with Cat.6A, Class EA requirements: ISO/IEC 11801 2.1 Edition Compliant with Cat.6A component			
Cable shield: STP/UTP			
Number of conductors: 8			
Stranding: 7 x 0.16 mm (26 AWG)			
Cable jacket characteristics: cable, metal-free			
Cable overall diameter: 6.0±0.2 mm			
Tube / Wire type: stranded conductor			
Insulation: foam skin, polyolefin, 0.98±0.02mm OD.			
Plug: Feature cable retention, with enhanced pull strength.			
Cat 6A patch cord plug to have round cable holder and strain relief boot to avoid bending.			
plug should have high repeatability cross talk performance			
Plug design should be patented with unique feature			
Should be ETL certified			
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory			
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.			
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801			
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.			
All the products must have RoHS Compliance			
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 16 : SM LC-LC Duplex FO patch cord			
Cable : LC-LC 9/125µm OS2 Single mode Duplex Patch Cord Length : 3mtrs			
Connectors : The optical fiber patch leads shall comprise of Single mode 9/125µm fiber with 2XLC type			

Executive Engineer (Elect.)

AIIMS/BBSR/ENGG/ELECT/24/2023

(Signature of the Bidder with Seal)

fiber connectors terminated at each end of fiber patch cord.		
Insertion loss should be better than 0.35 dB		
Jacket Material : LSZH complying to IEC 61034-1 & 2, IEC-60332-1, IEC-60754-1 & 2		
Attenuation: 1310/1550 : 0.36/0.22 dB/KM		
Connector Loss : 0.30dB(max)		
Operating Temperature : -40°C to +75°C		
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory		
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.		
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801		
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.		
All the products must have RoHS Compliance		
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 17 : 24 Port LIU Loaded			
Fiber optic patch panel : Fiber optic patch panel FMS Termination Drawer should have sufficient slots to accommodate 3 of 12/16 Port LC Adaptor Plates. The Fiber Tray should support interconnect network topologies Intelligent Fiber Trays for future readiness. Intelligent Panel should support Intelligent Patch Cords for intelligent communication with physical patching.			
Should have Slide type drawer structure			
Height: 1 U, 1.75 inches (12 & 24 Ports)			
Material: Cold Rolled Steel in surface coated by electrostatic epoxy powder			
Slots: FMS should have sufficient slots to accommodate adaptor plates			
Empty Slots of FMS should be covered with blank plates.			
Splice Tray : Splice Tray of ABS, Comply with UL 94V2 material should be supplied with LIU.			
12/16 Port LC/SC Type Adaptor Plates (Single mode)			
The adaptor plate should be pre-loaded with LC/SC Type Single mode Duplex Adaptors.			
Port Density :12/16 LC/SC Single mode Ports			
All LC adapters should be duplex type with shutter for protection. Adapters should be snap mount for easy insertion and removal.			
Insertion Loss: <0.2 to <0.1 dB			
Compliance :RoHS Compliant			
LC Type 9/125µm OS2 Fiber Optic Simplex Pigtail:			
Type : 9/125 micron fiber performance			
Jacket Material : LSZH complying to IEC 61034-1 & 2, IEC-60332-1, IEC-60754-1 & 2			
Operating Temperature: -40°C to +75°C			
Connector Insertion Loss: 0.30dB(Max)			
Attenuation: 1310/1550 : 0.36/0.22 dB/KM			
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory			
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.			
OEM shall provide declaration on conformity of all the passive components to the following standards: a)			

TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801		
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.		
All the products must have RoHS Compliance		
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 18 : 24 port loaded Keystone Jack panel			
	Patch panel should be modular design, populates up to 24 UTP/STP keystone-type jacks in 1U. The Copper Frame should support interconnect topology. Intelligent Modular Copper Frames for future integration. The intelligent panels should have the necessary intelligent hardware and light indicators integrated within the panels. Retrofits are not an option for future readiness.		
	Patch panel should be Enhanced with cable strain relief with retention tray; It should be single metal both front panel and rear tray. The Copper Frame should have a single LED above each port for future intelligent integrations and along with should support intelligent interconnect patching for future readiness. The panels should be passive, and the panels should not require any power for operation of the intelligent management solution.		
	Material: sub-rack made of Aluminum with dimension 44.4 mm : 482.6 mm : 105 mm (h:w:d) tray		
	Information Outlet or connection module should comply with the specification mentioned above in 2		
	Standard : Conforms to IEC-60603-7 (603-7) for keystone-type, snap-on apertures		
	Should be RoHS complied		
	OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory		
	OEM must be a member in the TIA organization.		
Cat 6A UTP RJ 45 Keystone Jack:			
	RJ45 Jack of Category 6A, for the establishing of transmission channels of class EA with up to 4 plugged connections, complies with Category 6A requirements of the standards ISO/IEC 11801:2.1 edition, EN 50173-1 (200X), ANSI/TIA/EIA 568-C.2, backwards compatible with Cat6, Cat.5e and Cat.5.		
	Suitable for 10GBase-T applications in acc. with IEEE 802.3an more than or equal to 800 MHz (ETL test report to be submitted)		
	Compatible with RJ standard plugs (RJ11, RJ12, RJ45), PCB- and tool free based connection of installation cables AWG 24 – 22 (0.5 mm – 0.65 mm) and flexible cables AWG 26/7 – AWG 22/7.		
	IDC termination should feature nil crossover in acc. with EIA/TIA 568-A/B, Tin phosphor bronze contacts for complying IEC 60603-7		
	Housing material: Polycarbonate (UL-94-V0)		
	Jack Contacts: Phosphor bronze, 50 micro-inch gold plating over nickel		
	Insulation Resistance: >= 500 MΩ		
	Dielectric Withstand Volt: 100VAC RMS 60Hz		
	Contact Resistance: <= 20 mΩ		
	Current Rating: 1.5A at 68°F		
	Plug insertion Life: >=750 times plug in		
	Contact Force: 99.2g (3.5oz) FCC Plug		
	Plug Retention Force: 30lb (133n/13.3Kg)		
	Temperature Test: -40 to 150°C (-40 to 66°C)		
	Keystone should feature with Tool free termination technology		
	Keystone Jack should be available in 8 different color options		
	Material: RoHS complied		

Should be be ETL Certified		
OEM shall have RCDD certified manpower in India for design support and validation. Certificate is Mandatory		
OEM shall have TIA Steering committee member and must be a member in the BICSI organization.		
OEM shall provide declaration on conformity of all the passive components to the following standards: a) TIA/EIA 568-C.2 ; b) TIA/EIA 568-C.3 ; c) ISO/IEC 11801		
OEM shall have valid ISO 9001 and ISO 14001 certificate on Design, development and manufacture of Software and Hardware solutions for communication networks.		
All the products must have RoHS Compliance		
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 19 : Field Termination Plug for camera end			
Standardization: Compliant with Cat.6, Class EA requirements: ISO/IEC 11801 2nd Edition backward Compliant with Cat.6 component standards IEC 60603-7-4 and 60603-7-5			
Cable: UTP/ STP			
Approval : UL Listed			
Termination: IDC type Tool less			
RJ45 Plug Metal covers: Zinc die-casting with nickel plated			
RJ45 Plug contacts: Phosphor bronze with nickel plated			
Plastic Wire Organizer: PC, Color: White, UL 94V-0			
IDC Durability: ≥20 Termination cycles			
RJ45 Jack Durability: ≥750 Plug-Jack mating cycles per IEC 60603-7-81			
Operating Temperature: -10 degree C to +60 degree C			
Patch Cord retention strength: 7.7 Kg Max. according to IEC 60603-7-5			
Rj45 Plug Insertion force: 3.1 Kg Max according to IEC 60603-7-81			
<ul style="list-style-type: none"> • All passive items such as Fiber cable, CAT6A cable, CAT6A patch cord, fiber patch cord, Jack panel , LIU are must be from same/single OEM for the best compatibility and to maintain the 25 year performance warranty. • Warranty declaration in OEM letterhead mentioning the product Model No. • Compliance in OEM letterhead 			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 20 : 16/6 Amp socket (AIO) switch with Box			
Amperes	(6-16) A		
FR Grade	Yes		
Material Grade	Poly Carbonate		
UV stabilized	Yes		
Voltage	240 V		
Shuttered Socket	Contact Pins are shuttered which provides safety to the kids		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 21 : 9U Rack			
Cabinet should be Protek 09U Height 600mm Width 500mm Depth with Wall Mounting brackets, 2 on LHS and 2 on RHS. standards, Basic structure of CRCA Steel(IS 513 Gr D Thickness ± 1 mm) , Side Integrated Single Section single section, wall mountable cable entry provision at the top and bottom , 19" Recess mounting angles-2Pairs .			
Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (Ka test) for 168 hours: degree of Rusting Ri1 according to ISO 4628-3, propagation ≤ 1 mm according to ISO 4628-8.			
UL approved product as per UL 2416 ISO 9001:2015, ISO 14001:2015, DIN 41494			
Epoxy polyester powder coating 60-80 micron thickness			
Front Door Toughened glass 4 mm thick with easy detachable hinges and lock – should be easily removable type.			
Double fan directly mounted on the roof top as an exhaust from the cabinet. Fan should be of AC 230V with flow volume of at least 90CFM			
Metal Cable Manager - 01U - Plastic Cable Loop's Mountable - Black Fine Tex-1Nos			
Mounting Hardware Packet { Contains 1 Nos Each Of 3 } - 10 Set -1PKT			
Cantiliver Tray - 01U - 255D -1Nos			
Power Distribution Unit - 06/16 Amp Universal - 06/16 Socket - 16 Amp Switch with Indicator - 06/16 Amp Fuse - 06/16 Amp 3 Pin Plug with Power Cable 0.75 sq.mm 1.5 meter Length – 1 No.			
Compliance in OEM letterhead , OEM submit mandatory Manufacturer Authorization Certificates.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 22 : 17/16U Rack			
The Floor Standing Racks Moducab 17/16 U 600mm Width 800mm Depth with openable CRCA Sheet side panel , 1 Top Cover and 1Bottom Cover with gland plate and rubber grommets for cable entry provisions shall be basic structure of rack is made up of 4 vertical aluminum alloy extruded members bolted with 4 horizontal aluminum alloy extruded members which forms 2 frame structures which are joined together by 4 depth sections with nut plates as Assemble/CKD (Complete Knock Down) design for easy accessibility and easy installation at site as and when required			
Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (Ka test) for 168 hours: degree of Rusting Ri1 according to ISO 4628-3, propagation ≤ 1 mm according to ISO 4628-8.			
UL approved product as per UL 2416 ISO 9001:2015, ISO 14001:2015, DIN 41494.			
Permissible load bearing up to 1200 kg			
Epoxy polyester powder coating 60-80 micron thickness.			
Front Moducab Front Glass Door – 17/16U - 800W - Cam Lock - Ventilation - Pastal Fine Tex. -1Nos.			
RearModucab Rear Single Door – 17/16U - 800W - Cam Lock - Square Slot Ventilation - Pastal Fine Tex. - 1Nos.			
Two Fan Directly top mounted inside the rack-1Nos.			
Set of 4 Castor 2With BRK /2 without BRK - 1Set			
Mounting Hardware Packet { Containg 1 Nos Each Of 3 } - 20 Set - 1PKT			
Metal Cable Manager - 01U - Plastic Cable Loop's Mountable -1Nos.			
Monitor Tray - Ventilation - 495W - 475D -1Nos			
Power Distribution Unit - 06 Amp Universal - 06 Socket- 16 Amp Switch with Indicator - 06/16 Amp Fuse - 06/16 Amp 3 Pin Plug with Power Cable 0.75 sq.mm 1.5 meter Length – 1 No - 1Nos			
Compliance in OEM letterhead , OEM submit mandatory Manufacturer Authorization Certificates			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 23 : 42U Rack			
The Floor Standing Racks Moducab 42 U 600mm Width 800mm Depth with openable CRCA Sheet side panel , 1 Top Cover and 1Bottom Cover with gland plate and rubber grommets for cable entry provisions shall be basic structure of rack is made up of 4 vertical aluminum alloy extruded members bolted with 4 horizontal aluminum.			
alloy extruded members which forms 2 frame structures which are joined together by 4 depth sections with nut plates as Assemble/CKD (Complete Knock Down) design for easy accessibility and easy installation at site as and when required.			
Salt spray test according to ISO 9227 (NSS test) and IEC EN 60068-2-11 (Ka test) for 168 hours: degree of Rusting Ri1 according to ISO 4628-3, propagation ≤ 1 mm according to ISO 4628-8.			
UL approved product as per UL 2416 ISO 9001:2015, ISO 14001:2015, DIN 41494.			
Permissible load bearing up to 1200 kg			
Epoxy polyester powder coating 60-80 micron thickness.			
Front Moducab Front Glass Door - 42U - 800W - Cam Lock - Ventilation - Pastal Fine Tex. -1Nos.			
Rear Moducab Rear Single Door - 42U - 800W - Cam Lock - Square Slot Ventilation - Pastal Fine Tex. - 1Nos.			
Four Fan Directly top mounted inside the rack-1Nos.			
Set of 4 Castor 2With BRK /2 without BRK - 1Set			
Mounting Hardware Packet { Containg 1 Nos Each Of 3 } - 20 Set - 1PKT			
Metal Cable Manager - 01U - Plastic Cable Loop's Mountable -1Nos.			
Monitor Tray - Ventilation - 495W - 475D -1Nos			
Power Distribution Unit - 06/13 Amp Multi-Standard - 10 Socket - Single Pole / Screw Mountable / 16 Amp MCB / Alternating Current - 16 Amp 3 Pin Plug with Power Cable 2.5 sq.mm 3 meter Length - 1Nos			
Compliance in OEM letterhead, OEM submit mandatory Manufacturer Authorization Certificates			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 24 : PVC flexible			
Product Category:	FRLS PVC Flexible Conduits		
Diameter:	25mm		
Colour:	Dark Grey		
Length:	30 mtr		
Material:	PVC		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 25 : Camera mounting Box			
Material	PVC		
Usage/Application	Junction Boxes		
Shape	Rectangular		
Dimension	5x5 Inch		
Mounting Type	Concealed Mounting		
Phase	single		
Dimensions	5x5 Inch		
Cable Entry	Bottom Entry, Side Entry		
Surface Finish	Polished		
Features	pipe connections		

Door Thickness	1.5 mm		
Packaging Type	Box		
Design	rectangular		
Number Of Locks	2		
Packaging Size	10		
Mounting Plate Thickness	1.5 mm		
Type	junction box heavy 20/25 mm		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 26 : HDPE Pipe			
PLB-HDPE Telecom Duct.			
Specification : TEC/GR/TX/CDS-08/03/MAR-11.			
Outer Diameter : 32 mm			
Inner Diameter : 26 mm			
Lubrication : Inner surface would have uniform Silicon lubrication.			
Length :500/1000 mtrs. per coil. As required			
Colour : any Colour with white stripes			
Marking: Pipe to be thus marked at every meter - manufacturer Name and type of pipe with sequential length marking.			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 27 : GI Pipe			
Shape	Round		
Size/Diameter	40 mm		
Material	GI		
Unit Pipe Length	6m		
Corrosion Resistance	Yes		
IS/1239 ISI Mark C (heavy)			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 28 : 1KVA offline UPS with double battery			
input parameters			
Configuration	1 phase, L-N + PE		
nominal voltage	208/220/230/240 Vac		
voltage range	170Vac / 150Vac/ 130Vac / 100Vac +/-5% (based on load percentage 100%-80% / 80% -70% / 70-60% / 60% -0)		
frequency	40Hz~70Hz		
power factor	>= 0.99 @ 220-230 Vac (I/P Vtg)		
current distortion (i-thd)	<=5%		
Bypass			
Voltage	220/230/240 Vac		
voltage range	120VAC~288VAC		
Frequency	50Hz		

frequency range	+/-10%		
output parameters			
Capacity	1 KVA / 800 W		
power factor	0.8		
Configuration	1 phase, L-N + PE		
nominal voltage	220/230/240 Vac		
voltage regulation	+/- 1% (Batt. Mode)		
voltage thd	2% THD, Linear load, 5% THD, Non-Linear load		
Frequency	50Hz / 60Hz		
Frequency Regulation - (Batt.Mode)	±0.25 Hz		
frequency regulation (synchronized range)	47 ~53 Hz or 57~63 Hz		
crest factor	3:1max.		
transient response	< 150ms (Up to recover static regulation after full RCD load take on/off)		
recovery time	4 hours to 90% recovery		
over load capacity	105% to 125% - 5min to bypass, 125% to 150% - 1min to bypass 150% to 200% - 10sec to bypass, >200% up - 250msec to bypass		
ac mode	86%		
battery mode	83%		
transfer time - mains to battery	0 millisecond		
transfer time - inverter to bypass - synchronization mode	4ms max		
parallel redundancy	NO		
battery charger			
charging voltage	27.4 Vdc+/-0.05V		
maximum charging current - std./ lb.	8 Amp		
battery parameters			
type	Sealed, lead-acid, Tubular, LI-ION		
back up 15 min	minimum 900 VAH		
back up 30 min	minimum 1000 VAH		
back up 1 hr	minimum 1800 VAH		
recharge time	for STD model : 5 hours recovers to 90% capacity (typical) / for LB Model : Depending on the capacity of ext. battery.		
environmental parameters			
operating temperature	0 to 40 deg. Centigrade		
storage temperature	-20 to 50 Deg. C		
relative humidity	20-95 % RH @0- 40 Deg.C		
noise level	< 50dBA @ 1 mtr		
temperature derating	N/A		
Altitude	IEC 62040-3 The UPS can operate < 4KM		
mechanical parameters			
depth x width x hight (mm) (std & lb model)	380x438x88 (2U)		
Weight	13.2 kg for STD; 9.1 kg for LB model		

Ventilation	Forced - Air cooled		
Cable Entry	Backside		
Color / Panel finish	IBM black		
Base castor wheels	No		
Protection	IP20		
Communication			
MONITORING SOFTWARE	SNMP, Relay Card & Modbus Card, View Power Pro Software		
STANDARDS	EN62040-2 -2006 :EMC, EN 62040-1-1 : 2003 : Safety, IEC / EN 62040-3 : Performance		
Inverter Devices	IGBT		
Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates			
Compliance in OEM letterhead			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 29 : 10 kVA UPS			
Input parameters:			
Rating	10KVA/10kw (3in-1out)		
Technology	IGBT based Double conversion PWM based online UPS		
Installation mode	Tower		
Rated voltage	400VAC 3-phase,4-wire		
Voltage Range	Three phase 175VAC -498VAC		
Rated Frequency	50Hz/60Hz		
Frequency Range	40Hz ~ 70Hz		
I/p phase reversal protection and correction	Yes		
Power factor	>=0.99 for Single Phase/0.95 for Three Phase		
Output Parameters :			
Rated power	10KVA/10kw		
Voltage	Single Phase 230/220 Vac.		
Frequency synchronization range	Rated frequency±3Hz. Configurable range: ±0.5Hz ~ ±5Hz		
Rated Power Factor	Unity		
Crest Factor	3:1'		
Voltage harmonic distortion	< 2% (linear load)		
Voltage Regulation	0.01		
Dynamic response recovery time	60ms		
Inverter Overload Capability on utility mode	At 25°C: 105% ~ 125%- 5min; 125% ~ 150%-1min; 150%- more than 200ms		
Inverter Overload Capability on battery mode	At 25°C :105% ~125%-60~ 30 s; >125%- more than 200ms		

Isolation transformer	Inbuilt at o/p side		
Bypass:			
Separate bypass	Yes		
Maintenance Bypass	Inbuilt		
Static bypass	Inbuilt		
Efficiency			
ECO Mode	0.94		
Online mode (AC-AC)	> 91%		
Inverter Efficiency(DC-AC)	>88%		
BATTERY back up on 8 kw			
Type	Sealed, lead-acid,Tubular,LI-ION		
back up 15 min	minimum 6200 VAH		
back up 30 min	minimum 10000 VAH		
back up 1 hr	minimum 15000 VAH		
Battery charging capacity	8A		
Transfer Time			
Mains - Battery	0ms		
Inverter-Bypass	Synchronous transfer: ≤0ms		
	Asynchronous transfer (default): ≤20ms		
Noise	<65db		
Panel display mode			
Display type	Graphical LCD display		
No of events stored	Max 256		
Orientation	Gravity sense		
Environmental parameter			
Operating temperature	0°C ~ 50°C(2)		
Storage temperature	-40°C ~ +70°C (battery excluded); -25°C ~ +55°C (battery included)		
Relative humidity	5%RH ~ 95%RH, non-condensing		
Altitude	≤3000m; derating when higher than 3000m		
Mechanical parameter			
W*D*H (mm)	550 X 620 X 700		
Weight (Kg)	138		
Ventilation	Forced -air cooled		
Ingress protection level	IP20		
Color	Powder coated Black Texture finish		
Cable entry	Rear		
Network Management			
Smart RS232/USB	Supports Windows 2000/2003/XP/Vista/2008,Windows 7,Linux,unix and MAC		
SNMP	Inbuilt for web monitoring		

Optional SNMP	Power management from SNMP manager and web browser		
Management software	Site monitor		
Modbus	Inbuilt via multifunction port		
Certifications			
Safety (CE)	IEC/EN62040-1-1		
Electromagnetic Compatibility (EMC)	IEC/EN62040-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008		
Surge Protection	IEC/EN62040-2, meeting IEC/EN61000-4-5		
Energy star	As per UL approved		
ROHS	Yes		
frost& sullvan report	Yes		
NABL Approved government lab test report .	Yes		
Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates			
Compliance in OEM letterhead			

SI No	Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 30 : 9 mtr GI pole for camera				
	General Specifications	9Mtr Hot Dip Galvanized Octagonal Pole with Foundation Type Base Plate & Foundation Bolts (Dimensions for pole as Top Diameter 70 mm, Bottom Diameter 155 mm, Section Length- 9000 mm, Thickness-3 mm, Foundation Type Base Plate (250X250X16 mm), Foundation Bolts (M24 X 700/750 MM4Nos).with single type arm bracket 1500 mm long made of 60 mm dia pipe ,suitable for PTZ camera fitting		
	Pole Shaft	The pole shaft shall be made from sheet steel confirming to BSEN 10025.The pole shaft shall have octagonal cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. All octagonal pole shafts shall be provided with the rigid flange plate of suitable thickness (as per IS 2062) with provision for fixing 4 foundation bolts. This base plate shall be fillet welded to the pole shaft at two locations i.e. from inside and outside.		
	Dimension	Pole Top Diameter 70 mm, Bottom Diameter 155 mm, Section Length- 9000 mm, Thickness-3 mm ,Base Plate (250X250X16 mm), Foundation Bolts (M24 X 700/750 MM-4Nos)		
	Door Opening	The octagonal Poles shall have door of approximate 500 mm length at the elevation of 500 mm from the Base plate. The door shall be vandal resistance and shall be weather proof to ensure safety of inside connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall also be suitable arrangement for the purpose of earthing. The pole shall be adequately strengthened at the location of the door to compensate for the loss in section.		
	Material	Octagonal Poles -Steel Grade BSEN 10025 - S355J0 or Equivalent Base Plate Fe 410 conforming to IS 226 / IS 2062		
	Pole Sections	The Octagonal Poles shall be in single section. There shall not be any circumferential weld joint.		

	Galvanization	The poles shall be hot dip galvanized as per relevant Indian standards with average coating thickness of minimum 65 micron.		
	Fixing Type	The Octagonal Poles shall be suitable for bolting on a foundation with a set of four foundation bolts for greater rigidity.		
	Bracket for fixing camera	The brackets shall be made of specified size G.I heavy duty pipe with minimum 1500 mm long and minimum 48 mm dia with necessary holding brackets, hold fasts etc suitable for Camera mounting.		
	Foundation drawing	Attached		
	Compliance in OEM letterhead			

SI No	Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 31 : 16 Amp DP MCB with enclosure BOX				
	Product Category: AC, DP & FP MCB Boxes including 16 Amp MCB			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 32 : HDMI Cable -15 mtr			
HDMI Version 2.1 male to male Cable			
Supports Ultra High-speed HDMI cable with Ethernet			
24K gold plated connector resists corrosion and ensures Maximum signal transfer and minimum data loss			
Supports Enhanced Audio Return Channel, 3D / 4K x 2K / 8K @ 60Hz Video			
High quality pure copper conductors			
High density aluminum shielding			
Braided cable with cotton mesh			
Transfer speed of upto 48 GBPS			
3-year warranty			
Warranty declaration in OEM letterhead mentioning the product Model No.			
Compliance in OEM letterhead			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 33 : Mounting Clamp for PTZ			
Parameter	Vertical Pole Mount Bracket		
Color	White		
Feature	Suitable for speed dome pendent mounting		
Material	Aluminum & Steel		
Dimension	117×194×451.3mm		
Weight	2040g		
The bracket should be installed on plat wall			
The bracket is suitable for vertical pole mount of 67-127 mm diameter			
Load capacity of pole should be more than 3 times the weight of camera and bracket			

Load capacity of clamp is 30KG		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 34: Server for VMS			
Server System	4LFF NHP Bay		
Processor	Intel Xeon® Silver 4212 12Core 2.2GHz – 2nos		
Chipset	Intel C621		
SSD	1 TB		
Memory	16GB*3 = 48GB, RDIMM 2 Rank 2666MHz		
Controller	SAS RAID 0,1,5 ; 42" FHD; professional 24 x 7 working monitor ; Wireless USB keyboard and USB optical mouse		
Networking Device	1G x 4 Port Network adapter		
Power Supply	750W AC Non-Redundant Power Supply		
Warranty	3 years		
Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates			
Compliance in OEM letterhead			

Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 35 : Video Management Software		
1. Central Video Surveillance Management Service		
Authenticates the Control Client access; manages the users, roles, permissions and monitors devices		
Provides the interface for third-party system integration		
VSM which forwards and distributes the video and audio data		
3rd Party Device Access Gateway : Communication between VSM and third-party device		
Responds to Control Client's request and sends real-time messages to Control Client		
2. Responds to Control Client's request and sends real-time messages to Control Client		
3. Accessibility and Management Capabilities		
Administration functions and operation functions are performed separately in the following clients:		
1. Web Client: All administration of VMS shall be performed using a web browser client via LAN, WAN or Internet. No client software is required for administration of the system.		
2. Control Client: All security operator features shall be accessed through the Control Client connected to VMS via LAN, WAN, or Internet		
4. It Shall support H.264, H.264+, H.265, and H.265+ encoding formats.		
5. It Shall remotely connect to the VMS server via TCP/IP and perform the following functions:		

1. Add encoding devices to the VMS using the following discovery options:		
a. IP/Domain		
b. IP Segment		
c. Port Segment		
d. Batch Import		
2. When adding NVRs and Network Cameras, devices shall have the option to automatically create logical areas by device name or add to an existing area.		
a) Automatically add device's recording schedule for future remote management. It Shall be able to set and modify NVR recording schedules.		
b) When adding an NVR, user can check the online and offline status of NVR channels.		
3. Once added, shows the online/offline status of devices in both physical view and logical view.		
4. Shall remotely configure NVRs and Network Cameras and set all functions that are available if connecting to devices directly.		
5. When adding Hybrid SANs, shall be able to set as host server for network camera or as an N+1 hot spare for Hybrid SANs recording redundancy		
6. it Shall support Cloud Storage Server.		
7. Improved security authentication.		
8. It Shall add up to 8 Smart Walls		
9. It Shall support the linkage between decoding device's video outputs and Smart Wall screens.		
10. It Shall display channels in the same area in alphabetical order		
11. It Shall synchronize NVR channel names with the names displayed on the Web Client.		
6. Recording: Shall have the ability to configure camera recording schedule and Picture Storage.		
1. Recording Configuration		
a. Batch add new recording schedules		
b. Delete/modify existing recording schedules		
c. Filter recording schedules by customized rules		
2. Picture Storage: Shall store the pictures of passing vehicles, events, and alarms on VSM server's HDD		
a. Turn on/off Picture Storage		
b. Select picture storage location.		
3. Recording Template Configuration shall have the ability to:		
a. Add multiple recording templates		
b. Delete/edit recording template		
c. Filter existing recording schedules by customized rules		
d. Set recording schedule for channels imported into the Central System from Remote Sites.		
7. Event & Alarm: Shall have the ability to configure the following:		
To avoid flooding operators with alarms, shall have the option of adding just an event from a device, that will be searchable via the Control Client, but not broadcast as an alarm:		
a) Shall batch add the following Video Content Analysis (VCA) events from cameras:		
Motion detection		
Line crossing detection		

	Intrusion detection		
	Region entrance detection		
	Region exiting detection		
b)	Shall batch add alarm input events		
c)	Shall batch add Health Monitoring events from Device:		
	Device Offline		
	HDD Full		
	R/W HDD Failure		
	Video Standard Mismatch		
	Camera/Recording Resolution Mismatch		
	Array Exception		
	Illegal Login		
d)	Shall batch add Health Monitoring events from servers:		
	Server Exception		
	HDD Full		
	R/W HDD Failure		
	System Temperature Too High		
	CPU Temperature Too High		
	Environment Temperature Too High		
	Memory Exception		
	Disk Loss		
	Disk Warning		
	Bad Disk		
	Disk Disconnect		
	Physic Volume Alarm		
	Array Initialization		
	Array Rebuilding		
	Array Explanation		
	Array Degradation		
	Array Detection		
	Array Repair		
	Array Unavailable		
	Video Loss Alarm		
	Recording Exception Alarm		
e)	If an event is added or batch added and is not configured, the Web Client will offer to activate and remotely configure, if the event type is supported on the NVR or Network Cameras but not configured on the device		
f)	Shall batch delete all invalid events that are not supported on NVR or Network Camera		
g)	Shall have the ability to convert any of above stated events into an alarm		
h)	Shall support email linkage		
i)	After configuring a recording schedule, video files of events can be searched and played		
	Alarms: NVR and Network Camera events shall also be able to be added directly as alarms by using the Alarm Configuration tab		
	Add ANPR events from the VSM		
	i. License Plate Matched Event		
	ii. License Plate Mismatched Event		

Alarm Priority shall be configured to one of three levels by default:				
	High Medium Low			
	o Shall have the ability to set alarm recipients from users accounts set up in the VSM			
	o Shall have the ability to associate up to 16 cameras recording with alarm events			
	o Shall have the ability to associate a map with an alarm			
	o Shall have the ability to trigger a pop-up window with an alarm event			
	o Shall have the ability to lock associated alarm event video footage, so it is not auto erased based on the camera schedule			
Shall support importing newly-added alarms of Remote Sites, and alarm linkage of popup window, audible warnings, alarms outputs, e-map linkage, Smart Walls, and email linkage				
Alarm source, trigger events, and alarm priority can also be displayed				
Shall support site offline alarm for Remote Sites				
Shall support alarm linkage of Smart Walls, Smart Walls and screens can be selected				
Shall support displaying alarms in alphabetical order				
8. Map: Shall have the ability to create graphical maps and add cameras, alarm inputs and alarm outputs				
	1. Create map by importing images in JPEG, BMP, or PNG format			
	2. Shall have the ability to add "hot region" icon to be able to skip to different layers of maps			
	3. Shall have the ability to add icons representing -			
	a. Camera b. Alarm Input c. Alarm Output			
	Shall have the ability to import image files to create custom map icons			
	Shall support switching to E-map of Remote Site by clicking the Remote Site icon			
9.Roles and Users :				
	1. Shall have the ability to create user profile groups defined as Roles			
	2. Role shall be able to restrict user profile access for administration functions			
Resource: Each "Role" can sub-divide the system and shall allow or deny access to the following features on a per-camera basis :				
	1) Live view			
	2) Playback			
	3) Capture and Print Pictures			
	4) Video Search			
	5) Download			
	6) Activate Manual Recording			
	7) Two-Way Audio			
	Tag Video o Add o Edit o Delete o View			

Lock video so it can't be overwritten by a schedule		
o Add		
o Edit		
o Delete		
o View		
PTZ Control		
Show Health Status		
Alarm Output Control		
Device (NVR, Network Camera)		
o Access device parameters/settings		
o Broadcast		
o Log search		
o Health Status		
Show Server health status		
Search log by user accounts		
Shall Control Smart Wall decoders		
Shall manage the permission of checking, adding, deleting, editing of each module on the Control Client		
Shall hide modules on the Control Client		
Alarm Center -		
i. View		
ii. Arm and Disarm		
iii. Delete Alarm		
iv. Acknowledge		
v. Trigger Pop-up Window		
vi. Search Alarm		
10.Users: shall be able to be added manually		
a. Create user name		
b. Default password on for initial login and then user must create a unique password		
c. Set expiry date of user profile		
d. Select user status		
e. PTZ control permission level		
f. Assign roles to the user		
g. View role list and detailed information		
h. Add domain user group		
i. PTZ control permission: notify the user with lower PTZ permission that PTZ control has been appropriated by another user with higher permissions		
11.Security for Users :		
Lock IP Address -		
Failed password attempts :		
Configurable: 1 to 5 attempts		
Lock for: 10, 20, 30, 40, 50, or 60 minutes		
Shall enable Maximum Password Age		
Auto Lock Control Client		
12.System and Maintenance :		
1. Shall create a name for the current site		
2. Shall set a static IP address for the WAN access		

3. The NTP settings shall be able to be set for syncing the time between the VSM and the NTP server		
4. Shall enable GIS map function and configure the map API URL		
5. If you have the AD (Active Directory) domain controller which contains the information (e.g., user data, computer information), you shall be able to configure the settings to get the related information. In this way, you can add the users that belong to an organization unit (e.g., a department of your company)		
6. The system shall be able to receive the configured generic events		
7. Shall set transfer protocol as HTTP or HTTPS		
8. Shall have system hot spare settings		
9. Shall reset network information of added devices		
10. Shall set database backup and restore.		
13. Control Client :		
The Control Client should be Windows-based software for security operators to access NVRs, Hybrid SANs, and network cameras using authorized client login credentials and view through the VSM. It shall provide multiple operating functionalities, including real-time live view, PTZ control, video playback and download/exporting, alarm management, VCA search, log query, and health monitoring module.		
Shall have the ability to support login to the Control Client through HTTP or HTTPS		
Shall have the ability to turn off and on VCA video overlay for both live and recorded video		
Shall have the ability to display the online/ offline status of Remote Sites in Central System		
14. Shall have the ability to view 3 auxiliary screens on 1 Control Client and shall have the following modules and functions:		
1) Live View :		
a. Ability to view up to 256 channels		
b. Ability to auto switch to sub stream of Network Camera, if more than 4 camera tiles are called up		
c. Ability to display license plate number when viewing ANPR camera after the ANPR function is activated in license		
d. The following functions are available on the tile toolbar for easy access to operator:		
i. Capture: ability to save snapshots		
ii. Print camera image		
iii. Enable manual recording of displayed Network Camera		
iv. Enable and utilize two-way audio		
v. Digital zoom		
vi. 3D positioning for PTZ camera		
vii. Activate on-screen PTZ controls		
viii. Show camera statistics		
ix. Switch to sub or main stream of camera		
x. Fisheye expansion		

2) Playback :		
a. Ability to play back 1 to 16 cameras simultaneously		
b. When playing multiple cameras simultaneously, have ability to view in non-synchronized and synchronized mode		
c. Ability to export one or multiple cameras displayed simultaneously: i. Set export location ii. Set whether to download VSPlayer for viewing MP4 files iii. Export only in MP4 format		
d. The following functions are available on the camera playback tile toolbar for easy access to operator:		
i. Capture: ability to save JPEG snapshots		
ii. Print camera image		
iii. Clipping: ability to quickly export video clips		
iv. Add tag to video		
v. Digital zoom		
vi. Lock video: to prevent video segments from being over written by schedule		
vii. Video export		
viii. Show camera statistics		
ix. VCA search		
x. Fisheye expansion		
e. Supports channel decoding on the Smart Wall		
f. Displays resolution ratio, encoding format, and frame rate of cameras		
g. Plays back channels of Remote Sites		
h. Supports dual-stream playback		
i. Supports transcoding playback		
j. Supports AVI format for video file download		
k. Supports encryption for downloading in MP4 format		
l. Supports clicking and playing directly after downloading with player in MP4 format		
m. Supports privacy mask after downloaded and played with VSPlayer		
n. Supports customizing download time		
3) Video Search :		
a. Ability to search for specific types of indexed video:		
i. Tag: Video that has been auto tagged or manually tagged at a certain timestamp		
ii. Lock: Search only video that has been "locked" to not be overwritten by schedule		
iii. Segment: Ability to search for up to 7 days of video averagely divided into segments from 1 to 100		
iv. Interval: Ability to search for up to 7 days of video divided by intervals from 1 to 60 minutes or seconds		
v. Transaction Event		
vi. Supports thumbnails (only searching video files stored in Hybrid SANs supports this function)		
VCA Search		
Support Motion Detection		
Support Line Crossing Detection		
Support Intrusion Detection		
4) Map :		

	View maps created in the Web Client		
	i. Ability to click on camera icons for live view of the camera		
	ii. Ability to click camera and alarm input icons to set Arming Control		
	iii. Ability to click camera and alarm input icons to show the history alarm		
	iv. Dynamic icons that flash based on alarm status		
	v. Ability to click on alarm output icons to turn on alarm output		
	5) Health Monitoring :		
	a. Ability to monitor all encoding devices, decoding devices, recording servers, Remote Sites, and Streaming Servers associated with VSM and the overall status of VSM itself.		
	b. Overview: Provide status of the following devices and the ability to click on items for a detailed report:		
	i. Camera Offline		
	ii. Signal Exception		
	iii. Getting Signal Failed		
	iv. Recording Exception		
	v. Getting Recording Failed		
	vi. No Recording Schedule		
	vii. Video Surveillance Management Service		
	viii. Recording Server Status		
	ix. Streaming Server Status		
	c. Display host server and spare server when hot spare function is enabled		
	d. Switch to physical view of the encoding devices		
	e. Switch to logical view of cameras		
	f. Get the encoding devices real-time status immediately via refreshing encoding devices		
	g. Display channels of Remote Sites		
	h. Restore the device accessing mode to Automatically Judge mode		
	6) Log: search and view logs for the following :		
	a. Server Logs -		
	i. Operation Log, Server Logs -Operation Log		
	ii. System Log, Server Logs - System Log		
	b. Smart Wall Logs		
	c. Device log		
	d. Log searches are based on operation, user, and time interval searches of:		
	i. Today		
	ii. Last 6 hours		
	iii. Yesterday		
	iv. Last 7 days		
	v. Custom time interval		
	Life time License free , OEM warranty support with free upgradation		
	Compliance in OEM letterhead		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 36	Workstation		
CPU	i9-12900H or better		
RAM	32GB (1x32GB)		
	1 TB PCIe NVMe		

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Win 11 Pro DG Win10 Pro HIE 720pHD+IR (Genuine licensed)		
42" FHD; professional 24 x 7 working monitor		
Wi-Fi 6E + BT , Wireless USB keyboard and USB optical mouse , minimum 4 USB ports, necessary PCIe slots in the motherboard, suitable VGA/ HDMI/ DP outputs; NIC with 1Gbps ports		
Graphics Card : NVIDIA RTX A1000 4G		
3/3/3+1yrADP		
VMS software loaded with all applicable licenses		
Antivirus Software compatible with Windows along with update subscription valid till warranty and AMC period		
Genuine licensed MS Office 2019 or latest Professional/ Business version		
Warranty declaration in OEM letterhead mentioning the product Model No.		
Compliance in OEM letterhead		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 37	USB Based Joystick		
	3D PTZ control and 2 joystick control buttons;		
	10 or above programmable buttons;		
	Support indicators to show the operation status of keyboard;		
	Compatible with a various kinds of client software and platform software;		
	Compatible System :Window XP/7/8/8.1 or above		
	Interface Type : USB 2.0, DirectX		
	Joystick Control : 3-axis control, rotating zoom		
	Operating Temperature & Humidity : -10°C ~ 55°C (14°F ~ 131°F); 10%~90% (Non-condensing)		
	Power Supply : 5V DC via USB		
	Consumption : ≤ 5W		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 38 – Control Room & Accesorries			
Wooden Flooring	The control room floor shall be Laminated interlocking Wooden Flooring: with a thickness of 8mm (minimum) ; The core of the laminated flooring shall be made of high-density fiberboard or plywood, with a decorative layer on top that mimics the look of real wood. This decorative layer is protected by a transparent wear layer that provides durability and resistance to scratches and stains; it shall be wear resistance. Area approx. 50 SQM.		
false ceiling	The false ceiling shall be: Material – calciumsilicare with grid system Tiles; Thickness - 8 mm ; size - 595 x 595 mm. Area approx. 50 SQM.		
Wall Painting	All walls of the Control room should be painted with Plastic emulsion Paint of approved brand with minimum two coat.		
Furniture	Two nos computer table 6ft x 3 ft size with 3 nos. of Operator Chair shall be installed at suitable place in the control room so that cctv operator will control the system easily.		
Air Conditioner	SITC of Two numbers of 4 TR precision air conditioner with suitable cooling and humidity control will be installed such way that it will work simltenously on/off automatically with all accessories including ducting/pipeing, electrical cabling/wiring as required for the smooth functioning of the ACs.		
Electrical Control Panel	SITC of Electrical Control Panel (Indoor) with Incommer MCCB of 125 Amp-01 no., Outgoing MCCB- 32 Amp-04 nos with digital Voltmeter and ammeter and indication lamp, CT &PT & suitable alluminium busbar and all connections as per requirement.		
Retrofit work and MCCB	Retrofit work for fixing of 125Amp MCCB in existing Emergency Pannel at nearest electrical room and SITC of 125 Amp MCCB (Make – L&T) .		
Power Cable	Supply & Laynig of 95 sqmm 3.5 core FRLSH armoured cable with suitable cable try from nearest Electrical room to the control room panel and end to end cable termination. Length of the cable appox 100 Meter.		
DB & Electrical wiring	Supply & fixing of suitable size TPN DB with busbar arrangement and wiring for Power points, light points and fan points with suitable size FRLSH cable and proper Conduit.		
Light & Fan	Supply and fixing of 2ft X2ft 36 watt LED recess mount fixture-10 nos & BLDC ceiling fan-04 nos		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 39 – Battery			
Battery Cell Composition	Sealed Lead Acid		
Net Quantity	1 count		
Nominal Voltage	12 Volts DC		
Reusability	Rechargeable		
Battery Type	SMF		
Battery Weight (approx.)	13 Kilograms		
Item Dimensions LxWxH	16.5 x 12.5 x 17.5 Centimeters		
Battery Capacity	42 Amp Hours		
Application of uses	Online UPS , Telecom etc		
Lead Acid Storage Type	C20 Rating		
Warranty	3 years		
Warranty declaration in OEM letterhead mentioning the product Model No.			
Compliance in OEM letterhead			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 40 : 55" TV			
Display			
Size	55 inch		
Resolution	3840 X 2160 (UHD)		
Backlight Unit Type	Direct		
Brightness	400		
Dynamic Contrast Ratio (Dynamic MCI (Hz))	1,000,000:1		
Static (Panel) Contrast Ratio	1300:1		
Refresh Rate	60Hz		
Video			
HDR (10 Pro / HLG)	Yes / Yes		
Audio			
Speaker (sound output)	10W + 10W		
Broadcasting System			
Digital (Terrestrial, Cable, Satellite)	DVB-T2/C		
Hospitality Feature	Hotel Mode / PDM / Installer Menu,One Channel Map,IP Channel Manager; External Speaker Out (Int Variable/Fixed, 3.5mm, Stereo, Single ended Type(GND,L+,R+), 2W+2W with 80)		
Smart Feature	webOS version (webOS 6.0), Smart Home (Launcher Bar), Web Browser Pre-loaded App (YouTube only,), SDP Server compatibility, Mood Display, Soft AP, Wi-Fi (Version) (802. 11ac), Screen Share (Miracast),		

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	Smart Share, Bluetooth Audio Playback, HDMI-ARC (ARC, HDMI2)		
Signage Feature	Vertical Setup, Fail Over, Play Via URL, NTP Server Setting, CISCO Certi. Compatibility, Crestron Connected (Network Based Control), DPM (Digital Power management), Time scheduler, RTC (Real Time Clock), NTP sync timer, BEACON, Embedded CM (contents manager), Embedded GM (Group manager)		
SUPERSIGN SW COMPABILITY	Control / Control Plus, CMS(Premium), Simple Editor.		
Input Interface			
Set Side	HDMI In (3 (2.0)), Headphone Out (Phone Jack Type), RS-232C(D-Sub 9pin / Phone jack) (Phone Jack, 4pi)		
Jack Interface			
Set Rear	USB (2.0), RF In, Digital Audio Out (Optical), External Speaker Out(3.5mm phone jack), RJ45 (Usage Purpose) (LAN)		
DIMENSION (UNIT: mm/kg) - or better			
VESA Compatible	300x300		
Weight without Stand	14		
Weight with Stand	14.2		
Weight in Shipping	19		
Size without Stand	1235x715x57.5		
Size with Stand	1235x772x232		
Size in Shipping	1360x810x162		
Bezel Width (L/R/U/B): On Bezel	12.8/12.8/12.8/19.9		
Power :			
Power Supply (Voltage, Hz)	AC 120 V-, 50 / 60 Hz		
Power Consumption(Max)	166.3		
Power Consumption(Type)	140.1		
Mechanic			
Standby Power Consumption	Under 0.5W		
Required Listing (Certification) :			
Safety	CB, CU TR		
EMC	CE		
Accessory :			
Remote type	S-con		
Power Cable	Detached (1.5m, Straight Type)		
Warranty			
Onsite	3 years		
Warranty declaration in OEM letterhead mentioning the product Model No. OEM submit mandatory Manufacturer Authorization Certificates			
Compliance in OEM letterhead			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
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BOQ NO – 42 : NVR : 16 channel		
Up to 16-ch IP camera inputs		
H.265+/H.265/H.264+/H.264 video formats		
Up to 2-ch@12 MP or 3-ch@8 MP or 6-ch@4 MP or 12-ch@1080p decoding capacity		
Up to 160 Mbps incoming bandwidth		
All channels support intelligent learning based Motion Detection		
Smart search for the selected area in the video, and smart playback to improve the playback efficiency		
Adopt stream over TLS encryption technology which provides more secure stream transmission service		
Provide independent HDMI and VGA outputs		
HDMI video output at up to 4K resolution		
16-ch synchronous playback		
1 self-adaptive 10/100/1000 Mbps Ethernet interface		
TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, SISTP, HTTP, HTTPS		
BIS certifications Model wise, series wise details should be available on the BIS website.		
OEM should be a Full member of ONVIF. For verification purposes, all the relevant details should be available on the ONVIF website. The OEM should give a declaration about its full membership.		
MAC address of the cameras must be registered in the name of OEM.		
Above compliance sheet shall be complied by OEM authorized person in OEM letterhead along with datasheets. Warranty declaration in OEM letterhead mentioning the Product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.		
Above compliance sheet should be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.		

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 43 : Hard disk 4TB surveillance HDD			
Capacity	4TB		
Form Factor	3.5-Inch		
Connector	SATA		
Transfer Rate	up to 180MB/s		
Recording Technology	CMR		
Cache Size	256MB		
Weight	450gms		
Operating Temperature	0°C to 65°C		
Non-Operating Temperature	-40°C to 70°C		
Certifications	BSMI, ICES-003/NMB-003, CE, FCC, KC, Maghreb, RCM, UKCA, VCCI, CB-Scheme, TUV, UL		
Above compliance sheet should be complied by OEM authorized person in OEM letter head along with datasheets. Warranty declaration in OEM letterhead mentioning the product			

Model No. At the time of delivery must submit Warranty and Test certificate mentioning the Serial No. of respective products in OEM letterhead.		
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Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 44 : 32" smart TV			
Display			
Size	32 inch		
Resolution	1366 X 768		
Refresh Rate	60Hz		
Video			
HDR (10 Pro / HLG)	Yes / Yes		
Audio			
Speaker (sound output)	5W + 5W		
Smart Feature	webOS , Web Browser Pre-loaded App, SDP Server compatibility, Mood Display, Soft AP, WiFi (Version) (802. 11ac), Screen Share (Miracast), Smart Share, Bluetooth Audio Playback, HDMI-ARC (ARC, HDMI2)		
Input Interface			
Set Side	HDMI In (2.0)		
Jack Interface			
Set Rear	USB (2.0), RF In, Digital Audio Out (Optical), External Speaker Out(3.5mm phone jack), RJ45 (Usage Purpose) (LAN)		
Power :			
Power Supply (Voltage, Hz)	AC 120 V-, 50 / 60 Hz		
Standby Power Consumption	Under 0.5W		
Required Listing (Certification) :			
Safety	CB, CU TR		
EMC	CE		
Accessory :			
Power Cable	Detached (1.5m, Straight Type)		
Warranty			
Onsite	3 years		
Warranty declaration in OEM letterhead mentioning the Product Model No.			
Compliance in OEM letterhead			

Feature	Specification	Compliance (Yes/No)	Remarks (if any)
BOQ NO – 45 : wireless mouse & keyboard			
Wireless Combo brings together cordless freedom with the comfort of a full-sized keyboard and sculpted, compact ambidextrous mouse.			
Full-size keyboard with number pad and arrow keys			
The keyboard includes eight media controls			
Spill resistant			

2 adjustable height options		
Compact ambidextrous mouse		
1 programmable button Left, right and middle click mouse buttons		
Smooth 1000 DPI optical tracking sensor		
Line-by-line scrolling		
Logitech Advanced 2.4 GHz wireless provides cordless freedom up to 10 meters (33 feet)		
On/Off switches		
Compatibility: Windows® 7, 8, 10 or later Chrome OS™		
Service Life : 5 million clicks		
3-year hardware warranty		

Annexure – XII

PREFERRED MAKELIST OF MATERIALS

Sl.No	Description of item	Acceptable makes
1	Camera , NVR	Tyco/ Prama /alcon/ Pelco /Axis/ Boach / Honeywell
2	Switch , Modules	Cisco / Netgear/Juniper /Aruba / Xtreme
3	Passive component	RIT /Commscope / Siemon/ Panduit / Belden /Legrand / Schneider
4	TV	LG/ Sony / Samsung / Panasonic / Toshiba
5	UPS	Vertiv /Schneider / Eaton / TMEIC/ APC
6	Workstation	HP / Dell / Lenovo /Acer
7	Server	HP / Dell / Lenovo/ Acer
8	Rack	Valrack / Netrack / Schneider /APW / Comrack
9	HDPE	Narayani Polypipes/Shree Narayani/Utkarsh/Oriplast
10	PVC	AKG / Polycab / Finolex/ Precision/Dimond/OBO
11	Electrical Scket box	Legrand / Schneider/ Anchor/Ancor/ roma
12	battery	Exide/Amran /Amara raja / Cummins
13	Hard drive	WD/Seagate/Toshiba
14	Other Item	TO BE DECIDED BY ENGINEER –IN -CHARGE
	<p>Note:</p> <ul style="list-style-type: none"> • Make and models of all materials should get approved from the engineer in charge well before placing order to the OEM/Authorized dealer. The agency is required to submit all relevant test certificates/documents and samples along with the proposal. The model along with sample should be approved by Engineer -in - Charge before supply of same to the site. The decision of Engineer -in – Charge is binding in this regard and no variation is acceptable. • Make of one material in one subhead will be the preferred make for the same material in other subhead if no preferred make is mentioned separately. 	

Annexure – XIII**Financial Bid**

Name of Work: - “Supply, installation, testing and commissioning of IP Based CCTV Surveillance system at AIIMS Bhubaneswar.”

NIT No: AIIMS/BBSR/ENGG/ELECT/24/2023

Sl. No	Description	UNIT	QTY	Unit price	Amount
1	SITC of NVR 64 channel	Each	7	59,398.48	1,115,789.38
2	SITC of Hard disk 10TB surveillance HDD	Each	56	33,370.40	1,868,742.40
3	SITC of 5 MP Dome camera	Each	175	10,726.20	1,877,085.00
4	SITC of 5 MP Bullet camera	Each	191	19,187.98	3,664,904.18
5	SITC of 4 MP 32x optical zoom PTZ Camera	Each	4	107,857.90	431,431.60
6	SITC of 1/10G, L3, 24 port (12 Copper + 12 Fiber) Stackable L3 fully Managed switch	Each	2	821,031.02	1,642,062.04
7	SITC of 10G, L2+/L3, 16 ports SFP+ fully Managed switch (First 12 ports support 1G)	Each	5	203,440.26	1,017,201.30
8	SITC of 10/100/1000 8 port (all) PoE+ (240W) with 2 additional ports with 2 10G SFP+ Ports L2+ fully managed switch	Each	17	116,438.86	1,979,460.62
9	SITC of 10/100/1000, L2+/L3, 24 PoE+(480W) and 2 additional ports with 4 Dedicated SFP+ 1G/10G ports switch	Each	23	196,647.00	4,522,881.00
10	SITC of 3M 10G cable SFP+ to SFP+ DAC	Each	2	23,779.99	47,559.97
11	SITC of 10G Single Mode SFP+ Module	Each	102	39,567.76	4,035,911.52
12	Supply , Laying ,testing and commissioning of 6 Core SM armoured FO cable	Mtrs	6380	103.69	661,520.51
13	Supply , Laying ,testing and commissioning of UTP cable CAT6 A 23 AWG	Mtrs	17350	116.80	2,026,417.54
14	SITC UTP Patch cord CAT6 A 3M	Each	20	1,323.49	26,469.88
15	SITC of Patch cord CAT6 A 1M	Each	372	670.98	249,605.82
16	SITC of SM LC-LC Duplex FO patch cord	Each	90	2,282.30	205,406.73
17	SITC of 24 Port LIU Loaded	Each	40	74,487.50	2,979,500.00
18	SITC of 24 port loaded Keystone Jack panel	Each	37	25,623.70	948,076.90
19	SITC of Field Termination Plug	Each	370	727.00	268,989.26
20	SITC of 16/6 Amp socket (AIO) switch with Box	Each	35	914.11	31,993.87
21	SITC of 9U Rack fully loaded with cable Manager ,16/6 A PDU ,fan.	Each	31	16,889.00	523,558.93
22	SITC of 16U Rack fully loaded with cable Manager ,16/6 A PDU ,fan.	Each	3	57,653.33	172,959.98
23	SITC of 42U Rack fully loaded with cable Manager ,16/6 A PDU ,fan.	Each	1	92,686.29	92,686.29
24	SITC of PVC flexible	Mtrs	75	71.51	5,363.10
25	SITC of PVC 5X5 inch Camera mounting Box	Each	366	92.96	34,023.51
26	Supply and Laying of HDPE Pipe 25mm Inner Diameter with route markers for fiber cable	Mtrs	2740	170.43	466,971.08
27	Supply and Laying of GI Pipe 40mm	Mtrs	383	1,007.07	385,708.19

Executive Engineer (Elect.)

AIIMS/BBSR/ENGG/ELECT/24/2023

(Signature of the Bidder with Seal)

28	SITC of 1KVA offline UPS	Each	20	11,322.10	226,442.00
29	SITC of 10 kVA UPS	Each	1	388,526.80	388,526.80
30	SITC of 9 mtr GI pole for camera	Each	2	77,467.00	154,934.00
31	SITC of 16 Amp DP MCB with enclosure BOX	Each	1	1,203.72	1,203.72
32	SITC of HDMI Cable 15M	Each	7	6,989.91	48,929.35
33	SITC of Mounting Clamp for PTZ	Each	4	2,741.14	10,964.56
34	SITC of Windows CCTV server	Each	1	923,645.00	923,645.00
35	SITC of VMS software	Each	1	995,153.00	995,153.00
36	SITC of Workstation	Each	2	271,134.50	542,269.00
37	SITC of 3D PTZ control joystick	Each	2	26,559.26	53,118.53
38	SITC of Control room & Accesorriess . the detail technical specification attached.	Each	1	1,007,071.00	1,007,071.00
39	SITC of 12V 42AH Battery including all necessary wireing	Each	20	10,130.30	202,606.00
40	SITC of 55" 4K smart TV	Each	6	81,638.30	489,829.80
41	Splicing of LIU Pigtails on Fibre Cables	Each	426	233.59	99,510.53
42	SITC of NVR : 16 channel	Each	1	9,635.70	9,635.70
43	SITC of Hard disk 4TB surveillance HDD	Each	2	8,044.65	16,089.30
44	SITC of 32" smart TV	Each	1	16,536.23	16,536.23
45	SITC of wireless mouse & keyboard	Each	1	1,477.83	1,477.83
Total PART A					3,64,70,222.94

DSR items Part B

1	SITC of 3 Core 1.5 Sqmm Copper wire	Mtr	1200	95.00	1,14,000.00
2	Supply and Laying of PVC conduit 25 MM with accessories	Mtr	10800	145.00	15,66,000.00
3	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil Pipes, cables, etc, not exceeding 80 mm dia.	Mtr	1506	255.55	3,84,858.30
4	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix).	cum	30	2,007.10	60,213.00
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	30	7,783.65	2,33,509.50
Part B total					2,358,580.80

	Total Part A + Part B (Including GST)	3,88,28,803.74
	Say	3,88,28,804

PERFORMA FOR QUOTING RATES

Name of Work:- "Supply, installation, testing and commissioning of IP based CCTV Surveillance system at AIIMS Bhubaneswar."	
e-NIT No: AIIMS/BBSR/ENGG/ELECT/24/2023	
Estimate Cost put to tender :- ₹ 3,88,28,804	
Name of Contactor -	
Total Component (Part A & B)	
Total Amount (Material Component Part – A & Part -B including of GST) in Rs.	₹ 3,88,28,804
Percentage above/below the total estimated cost
% in words
Total Amount (Rs.)

(Rupees _____ only)

Note: -

- 'L-1' shall be decided on composite basis of total amount of Part 'A' & 'B'.**
- MR = To be read as Market Rate.**
- The project include 1 year DLP period and 4 year CMC/warranty period (Total 5 Years) towards security deposit.
- The Bidder must submit Financial Bid in On-Line Mode.
- I/We have gone through the terms & conditions as stipulated in the tender and confirm to accept and abide the same.
- No other charges would be payable by the Institute.
- Quantity mentioned above is tentative, it may increase or decrease as per site requirement.
- Agency has to bring samples as per above preferred brands only and Engineer-In-Charge shall approve one sample out of the samples brought by the Agency. The Agency has to use material of that approved sample only. No claim in this regard shall be entertained.
- In case of non-availability of material of approved make, prior approval from Engineer-In-Charge shall be obtained for another make.
- The quoted should be inclusive of GST as applicable.

I, the contractor certify that I am filling this template after understanding all the items of schedule of Quantity of e-NIT page no.-----

Name : _____

Business Address: _____

Signature of the Bidder: -

Date : _____

Place : Bhubaneswar

Seal of the Bidder _____

Annexure – XIV

E-TENDERING INSTRUCTIONS TO BIDDERS

General. The Special Instructions (for e-Tendering) supplement 'Instruction to Bidders', as given in this Tender Document. Submission of Online Bids is mandatory for this Tender. E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Suppliers / Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, AIIMS BHUBANESWAR has decided to use the portal <http://eprocure.gov.in/AIIMSBBSR> website.

Instructions.

1. **Tender Bidding Methodology.** Two Stage Online Bidding.
2. **Broad outline of activities from Bidders prospective:**
 - (a) Procure a Class III Digital Signature Certificate (DSC).
 - (b) Register on the e-Procurement portal <http://eprocure.gov.in/AIIMSBBSR> website.
 - (c) Create Users on the above portal.
 - (d) View Notice Inviting Tender (NIT) on the above portal.
 - (e) Download Official Copy of Tender Documents from the above portal.
 - (f) Seek Clarification to Tender Documents on the above portal. View response to queries of bidders, posted as addendum, by AIIMS, Bhubaneswar.
 - (g) Bid-Submission on the above portal.
 - (h) Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Technical Part.
 - (j) Post-TOE Clarification on the above portal (Optional) – Respond to AIIMS, Bhubaneswar's Post-TOE queries.
 - (k) Attend Public Online Tender Opening Event (TOE) on the above portal - Opening of Financial Part (Only for Technical Responsive Bidders).

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the above portal.

3. **Digital Certificates.** For the integrity of data and authenticity / non-repudiation of electronic records, and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC), also referred to as Digital Signature Certificate (DSC), of Class III, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].
4. **Registration.** To use the Electronic Tender portal <http://eprocure.gov.in/AIIMSBBSR> website, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons vis-à-vis Authorized Signatory who will be the main person coordinating for the e-tendering activities. In the above portal terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and follow further instructions as given on the site. Pay Annual Registration Fee as applicable.

Note.: After successful submission of Registration details and Annual Registration Fee, please contact to the Helpdesk of the portal to get your registration accepted/ activated.

(a) The Bidder must ensure that after following above, the status of bid submission must become - "Submitted".

(b) Please take due care while scanning the documents so that the size of documents to be uploaded remains minimum. If required, documents may be scanned at lower resolutions say at 150 dpi. However, it shall be sole responsibility of bidder that the uploaded documents remain legible.

(c) It is advised that all the documents to be submitted are kept scanned or converted to PDF format in a separate folder on your computer before starting online submission.

(d) The Financial part/BOQ may be downloaded and rates may be filled appropriately. This file may also be saved in a folder on your computer. Please don't change the file names & total size of documents (Preferably below 5 MB per document) may be checked.

5. Bid submission. The entire bid-submission would be online on the Tender wizard portal i.e. <https://eprocure.gov.in>/AIIMS, Bhubaneswar.

6. Broad outline of submissions are as follows: -

(a) Submission of Bid Parts (Technical & Financial).

(b) Submission of information pertaining to Bid Security/ EMD.

(c) Submission of signed copy of Tender Documents/Addendums.

7. The TECHNICAL PART shall consist of Electronic Form of Technical Main Bid and Bid Annexure. Scanned/Electronic copies of the various documents to be submitted under the Eligibility Conditions, offline submissions, instructions to bidders and documents required establishing compliance to Technical Specifications and Other Terms & Conditions of the tender are to be uploaded.

8. The FINANCIAL PART shall consist of Electronic Form of Financial Main Bid and Financial Bid Annexure, if any. Scanned copy of duly filled price schedule (Section VII) for both packages are to be uploaded. If required, additional documents in support of taxes, quoted duties etc may also be uploaded.

9. Tender Processing Fee. As per applicable.

10. Public Online Tender Opening Event (TOE). The e-Procurement portal offers a unique facility for 'Public Online Tender Opening Event (TOE). Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organization) duly authorized. Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on the portal. As soon as a Bid is decrypted, the salient points of the Bids are simultaneously made available for downloading by all participating bidders. The medium of taking notes during a manual 'Tender Opening Event' is therefore replaced with this superior and convenient form of 'Public Online Tender Opening Event (TOE)'. The portal a unique facility of 'Online Comparison Statement' which is dynamically updated as each online bid is opened. The format of the Statement is based on inputs provided by the Buyer for each Tender. The information in the Comparison Statement is based on the data submitted by the Bidders. A detailed Technical and / or Financial Comparison Statement enhance Transparency. Detailed instructions are given on relevant screens. The portal has a unique facility of a detailed report titled 'Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/Downloading'. There are many more facilities and features on the portal. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

Important Note. *In case of internet related problem at a bidder's end, especially during 'critical events' such as – a short period before bid-submission deadline, during online public tender opening*

event it is the bidder's responsibility to have backup internet connections. In case there is a problem at the e-procurement / e-auction service-provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of AIIMSBBBSR by the bidders in time, then AIIMS, Bhubaneswar will promptly reschedule the affected event(s).

9. Other Instructions. For further instructions, the vendor should visit the home-page of the portal. The complete help manual is available in the portal for Users intending to Register / First-Time Users, Logged-in users of Supplier organizations. Various links are also provided in the home page.

Important Note. : It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups and minimize teething problems during the use of the said portal.

The following 'FOUR KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to :-

1. Obtain individual Digital Signature Certificate (DSC) well in advance of your first tender submission deadline on the portal.
2. Register your organization on the portal well in advance of your first tender submission deadline on the portal
3. Get your organization's concerned executives trained on the portal well in advance of your first tender submission deadline on the portal
4. Submit your bids well in advance of tender submission deadline on the portal (There could be last minute problems due to internet timeout, breakdown etc.)
5. While the first three instructions mentioned above are especially relevant to first-time users on the portal, the fourth instruction is relevant at all times. Minimum Requirements at Bidders end Computer System with good configuration (Min P IV, 1 GB RAM, Windows XP) Broadband connectivity. Microsoft Internet Explorer 8.0 or above. Digital Certificate(s) Vendors Training Program Necessary training to each and every registered bidder under this portal shall be impacted by the ASP, M/s. ITI, Bhubaneswar, if required, before participation in the online tendering.
6. For any further Assistance <http://eprocure.gov.in/AIIMSBBBSR> website for E-tendering queries contact the **representative NIC helpdesk.**