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Date: - 31/07/2025

#### PARALA MAHARAJA ENGINEERING COLLEGE

(An autonomous college affiliated to Biju Patnaik University of Technology, Odisha, Rourkela) SITALAPALLI, BERHAMPUR, DIST- GANJAM, PIN – 761003

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No. PMEC/Estt./1809

Tender Document for Supply, Installation, Testing and Commissioning of IP-based Digital CCTV Surveillance System for Classrooms and College Campus at PMEC, Berhampur

## PART I (TECHNICAL BID)

Submitted by	
Name of the Bidder:	
<b>Postal Address for Communicat</b>	ion:
Mobile No:	Email Id:
Date of availability of Tender Do	ocument: 31/07/2025
<b>Tender Estimated Cost</b>	: Rs. 83,44,805/-
<b>Tender EMD Cost</b>	:
Last Date and Time of Submission	on of : 30/08/2025
Tender by Registered/Speed Pos	t Only
<b>Cost of Tender Document</b>	: Rs. 2000/- (Rupees Two Thousand Only) to be
submitted in the form of DD in fav	our of "Principal, Parala Maharaja Engineering College,
Berhampur" drawn in any Nationa	lized Bank payable at Berhampur
Date & Time of Opening of Tech	nnical bid :
Date & Time of Opening of Price	e bid :
The Document is prepared by PM	IEC, Berhampur consisting of Pages-1 to 69. It should not

be reused, copied, or used either partially or fully in any form. The information provided by the bidders in response to this quotation document will become the property of PMEC, Berhampur and will not be returned.

#### **Terms and Conditions for Submission of Bid**

- 1. Bidder's Eligibility Criteria: The bidder should verify its eligibility criteria as mentioned below before submitting the tender and enclose the required documents in the technical bid in the sequence listed below, to avoid rejection or disqualification of the tender. The bidder should meet the following criteria.
  - a) The Bidder should be OEM (Original Equipment Manufacturer) or Authorized system Integrator/ Authorized Dealer of the OEM of the offered product. OEM has to submit up-to-date copy of the Industry Registration of offered products and Tax Registration Certificate issued by the competent authority. The Authorized Dealer/System Integrator has to submit OEM's authorization letter, in original, on the OEM's letterhead duly ink-signed by the authorized signatory of OEM.
  - b) Original Equipment Manufacturer/Authorized system Integrator/Authorized Dealer for IP-based Digital CCTV Surveillance System shall have a base with technical support function and service network across India. The Bidders has to submit OEM's authorization, in original, on the OEM's letter head, in support of OEM's service/support centers located at Bhubaneswar/ Berhampur in the state of Odisha, duly ink-signed by OEM.
  - c) Must be a reputed system integrator having an agreement/certificate of technical collaboration with any reputed IP Camera manufacturer and Video Management and Analytics software.
  - d) Must have wide experience in providing IP-based CCTV Surveillance Systems for the entire Campus including Classrooms having approx. area of 80 acres or more and the Campus should preferably be NITs/IITs/reputed Research Laboratories/Government Institutions within India. Necessary supporting documents like work orders, work completion certificates, payment certificates etc. for the last three years to this effect must be submitted along with the offer.
  - e) The bidder should be a registered company making a profit for the last three years, having a good business track record. The average annual turnover of the company should be more than Rs. 40 Lakhs in the last three years.
  - f) The bidder should be a registered firm in India, having valid GST/CST/VAT/PAN/TIN/Service Tax etc.

- g) Bidder should have BIS certification for quoted IP based CCTV System and it's accessories.
- h) Bidder shall have to provide operational Training for CCTV Surveillance System to Officials at the Consignee site at least for 7 days. Training must include user training, account creation, coordination, logs, controls, hand holding, running and up-keeping, and troubleshooting/maintenance/repair to be done for the network being created.
- i) All after-sales support should be provided directly by the OEM through the bidder.
- j) The bidder should provide 5-years Standard Warranty for all hardware (equipment/spares/accessories/any item etc) and software supplied for complete CCTV network System and 1-year Standard Warranty for free technical support and maintenance obligation. After expiry of 1-year free maintenance obligation, the bidder must have willingness to provide maintenance service for next 4-years under Comprehensive Annual Maintenance Contract (CAMC) for new network system.
- k) The bidder should not have been blacklisted by any organization.
- 2. Bidders may visit the college, at their own expense, in any working day during office hours so as to acquaint themselves with the (i) site conditions (ii) scope and extent of work etc where the job is to be carried out before quoting the rates.
- 3. The Bidder shall have the single point responsibility for the complete Turnkey solution including supply, installation, testing & commissioning and maintenance.
- 4. Cost of tender documents: The tender documents can be downloaded from the Institute website www.pmec.ac.in and have to deposit a Demand Draft equal to the cost of tender documents of Rs. 2000/- (Rupees Two Thousand Only) (Non-refundable, Non-adjustable and Non-transferable) in favor of "Principal, Parala Maharaja Engineering College, Berhampur" drawn in any Nationalized Bank payable at Berhampur.
- 5. Earnest Money Deposit of Rs. 3,98,740/- in the shape of a Demand Draft in favour of "Principal, Parala Maharaja Engineering College, Berhampur" drawn in any Nationalized Bank payable at Berhampur. The EMD of unsuccessful bidder shall be returned within fifteen days of finalization of the work order. The Institute shall not be responsible for any non-receipt of the EMD by post.
- 6. This tender documents must reach to "The Principal, Parala Maharaja Engineering College, Sitalapalli, Berhampur, Ganjam-761003 (Odisha)" by the last date of submission under a sealed cover by registered/speed post only. The tenders received

- after the due date & time is liable to be rejected. The Institute is not responsible for any delay, loss or non-receipt of tender documents sent by post. Submission of tender by FAX/e-mail/Courier will not be entertained.
- 7. This tender documents must be filled in completely and signed by the authorized signatory of the bidder on all the pages as acceptance of the guidelines, terms and conditions laid in this tender document, otherwise the bid shall become invalid. (This document should be printed on both side of the A4 size paper sheet).
- 8. The tenders shall be opened in the presence of the bidder or their authorized representative on due date and time as specified in the tender document. The name and address of the representative authorized to attend the opening of the tenders on behalf of bidder should be indicated in the tender. The representative so deputed should also bring with him a letter of authorization from the firm for having been authorized to be present at the time of opening of tenders and are required to sign an attendance sheet. Only one representative per firm shall be permitted to attend the opening of the tenders
- **9.** If the date of opening of tender happens to be a holiday, a revised schedule will be notified. However, in absence of such notification, the tender will be opened on the next working day. The time and venue remains unaltered.
- **10.** Any additional information, bidders wish to provide may be attached separately.
- 11. Documents Comprising the Bid: The bid prepared by the bidder shall be in English and shall comprise of two parts i.e. (1) The Technical Bid and (2) Financial Bid. In case, any bidder encloses the financial bid within technical bid, the same shall be rejected.
  - **Part I (Technical Bid):** To qualify in the Technical bid, the bidder should have the minimum eligibility criteria as under and the bidder in this regard must submit the following documents in support of his eligibility criteria;
  - a) Demand Draft (non-refundable) towards the cost of tender documents in favour of "Principal, Parala Maharaja Engineering College, Berhampur" drawn in any Nationalized Bank payable at Berhampur. Demand draft towards EMD in favour of "Principal, Parala Maharaja Engineering College, Berhampur" drawn in any Nationalized Bank payable at Berhampur. Both DDs should be made separately.
  - b) Duly filled-in Information Sheet of the bidder along with enclosures (Annexure-I)
  - c) Profile of the organization along with list of personnel including skills and competence in organization.

- d) Unconditional acceptance letter of undertaking for the terms and conditions of this tender documents in the prescribed format (**Annexure-II**)
- e) Self-attested copy of up-to-date IT PAN of the firm, VAT registration, VAT clearance and service tax and GST registration certificate etc., issued by appropriate government authority for the required services with sale.
- f) Financial Status: The average annual turnover of the firm should be more than 40 Lakhs in last three years. Copies of profit & loss account and balance sheet duly authenticated by a charted accountant for the last three years.
- g) Copy of Income Tax return acknowledgement for last three year.
- h) Bidders should submit copy of up-to-date valid certificate of OEM/Business partner/ Authorized system Integrator/Partner for CCTV Surveillance System and its Components. Tender Specific authorized Letter from OEM's must be submitted.
- i) Bidder should submit a declaration letter on OEM letter head duly ink-signed and stamped, declaring that the supplied products are of five years warranty.
- j) List of user's clients related to experience of execution of similar work in central/ state Govt departments, PSU's, Autonomous bodies, Large Industrial, Educational campus, where similar services (supply and installation of IP-based CCTV Surveillance equipment's) are provided by the agency for the clients along with address and telephone numbers with supporting documents like work orders, work completion certificate, payment certificate etc. for last three years to this effect must be submitted along with the offer (Annexure-III)
- k) The bidders must enclose a self-declaration that he has never been black listed or punished by any court for any criminal offence/ breach of contract and no police/vigilance enquiry/criminal case is pending against him or company/agency as the case may be.
- 1) Two self-attested envelopes of size 11" x 5" (or above) with complete address with pin and contact no written for future correspondence.
- m) Two self-addressed slips of size 6" x 3" (or above) with complete address with pin and contact no. written for future correspondence.
- n) Technical compliance form for the technical Specification of items with make & model must be filled up properly without any ambiguity as per Annexure-IV failing which the tender paper shall be rejected. The bidder has to furnish one make & one model of each

- item looking into the compatibility of the system. The bid shall be rejected quoting more than one make/model.
- o) Detailed literature along with make, model, topology, design, data sheet, pamphlets/catalogue and performance curves as applicable. The bidder has to submit a schematic diagram/drawing of network system.
- p) Other Annexure duly filled-in and signed with official seal
- q) Any other document in support of the eligibility of the bidder.

Part II (Price Bid): The price bid shall specify the following.

- a) The hard copy of the price bid for Supply, Installation, Testing and Commissioning of IP-based Digital CCTV Surveillance System for Classrooms and College Campus at PMEC, Berhampur as per technical specification and scope of work in Indian Rupees only in the **Annexure-VIII** (A).
- b) Charges for CAMC of IP based CCTV Surveillance System at PMEC, Berhampur in the **Annexure-VIII (B)**

#### 12. Submission of Tender: Sealing and Marking of Bids

The bidder shall wax seal the technical bid and financial bid in two separate envelopes, clearly superscribing on the covers "Part I – Technical bid for IP based CCTV Surveillance System" and "Part II – Price Bid for IP based CCTV Surveillance System" and also indicating on each of the covers the "Tender call Notice Number & Date" and Due date and time of submission as mentioned in Tender Call Notice. These envelopes (Part I and Part II separately) should be addressed to "The Principal, Parala Maharaja Engineering College, Sitalapali, Berhampur, Ganjam-761003.

Envelopes 1 & 2 should be submitted in a 3<sup>rd</sup> big envelope super-scribing "SITC of IP based CCTV Surveillance System for Classrooms and College Campus at PMEC, Berhampur" and addressed to "The Principal, Parala Maharaja Engineering College, Sitalapali, Berhampur, Ganjam-761003.

- 13. The tender is liable to be cancelled, and the EMD shall be forfeited in the event of any failure to comply with any of the clauses of the terms and conditions of this tender call document or in the event of the bidder withdrawing his offer before/after finalization of this selection process. Bid without the required EMD amount will be summarily rejected.
- **14.** Bid shall remain valid for 120 days after the date of bid opening. The bid valid for a shorter period shall be rejected by the Institute as non-responsive. In exceptional

- circumstances, the Institute may request for the consent of the bidder for an extension to the period of bid validity.
- **15.** To assist evaluation and comparison of the bids, the Institute at its discretion may ask the bidder for clarification of the bid. The clarification and response from the bidder shall be in writing.
- 16. The Institute reserves the right at the time of award of the order to increase or decrease the quantity of the goods and services specified in the schedule of requirements without any change in unit price of the ordered quantity and to exclude specific goods listed in the schedule of requirements from the order.
- 17. The Institute reserves the right to reject any or all the tenders without assigning any reason and the decision of the Institute shall be final and binding.
- 18. The Institute reserves the right to call the bidders and conduct negotiations, if necessary and has the right to select more than one bidder, one bidder for one or more items at its discretion.
- **19.** Any deviation in specification, terms and conditions shall not be entertained. The institute reserves the right to add/delete/change/modify any of the specifications, terms and conditions of this tender call document if it is necessary during the process of execution of the work.
- **20.** The Institute reserves the right to order all or part or none of the items and/or services given in this schedule. The Institute also reserves the right to order additional services based on the rates finalized as a result of this tender.
- 21. At any time prior to date of submission of tenders, the Institute may, for any reason, or decision, modify the terms & conditions of the tender document by a corrigendum displayed on the website of PMEC (<a href="www.pmec.ac.in">www.pmec.ac.in</a>). In order to provide reasonable time to take the amendment into account in preparing their bid, the Institute may or may not at its discretion, extend the date and time for submission of tenders.

#### 22. Technical Evaluation of Bids

a) Detailed technical evaluation shall be carried out by the Technical Evaluation Committee pursuant to conditions in the tender documents to determine the responsiveness of each tender. For this clause, the substantially responsive bid is one that confirms all the eligibility and terms and conditions of the tender without any material deviation. The institute's determination of bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence. The institute

- shall evaluate the technical bids to determine whether they are complete, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are in order.
- b) The technical evaluation committee may call the responsive bidders for discussion or presentation to facilitate and assess their undertaking of the scope of work and its execution. However, the committee shall have sole discretion to call for discussion/ presentation.
- c) Financial bids of only those bidders who qualify the technical criteria will be opened, provided all other requirements are fulfilled.
- d) A bid determined as subsequently non-responsive will be rejected by the institute.
- e) PMEC, Berhampur shall have the right to accept or reject any or all tenders without assigning any reason thereof.

#### 23. Financial Evaluation and Comparison of Bids

- a) The financial bid shall be opened of only those bidders who have been found to be technically eligible as enumerated earlier. The financial bids shall be opened in the presence of representatives of technically eligible bidders, who may like to be present. The Institute shall inform the date, place, and time for the opening of the financial bid.
- b) The rates must be quoted as per the format prescribed. The quoted price must be inclusive of all taxes including GST, freight, packing, forwarding, transit insurance etc. and must be shown clearly against each entity for delivery at the site. The installation, commissioning, demonstration and training shall be at the supplier's cost.
- c) Bidder shall quote the rate price of all taxes and other costs while quoting for the tender in "Part -II: Financial bid" to be kept in Envelop No. 2. Income Tax will be deducted at source from the bills as applicable.
- d) Arithmetic errors shall be rectified on the following basis. If there is a discrepancy between the unit price and total price, the unit price shall prevail and the total price shall be corrected by the institute. If there is a discrepancy between words and figures, the lesser amount shall be considered valid. If the supplier does not accept the correction of the errors, his bid shall be rejected.
- e) Quoting the minimum rate just for acquiring the tenders will not be the only criteria for the award of the contract. Therefore, bidders should carefully assess the work before offering the rates. The tenders will be evaluated based on total cost which will include the capital cost quoted for the system and the rates quoted for CAMC for a period of 4

- years. Payment terms for CAMC will be as half-yearly payment after satisfactory completion of the service.
- f) The purpose of bid evaluation is to determine substantially responsive bid with the lowest evaluated price, but not necessarily the lowest submitted price, which should be recommended for award.
- g) The total evaluated cost will be the total cost required for the work in Annexure-VIII (A) and rate quoted for the CAMC in Annexure-VIII (B), which will be considered for the ranking/evaluation.
- h) The PMEC, Berhampur does not bind himself to accept the lowest bid or any bid and reserve the right of accepting the whole or any part of the bid or portion of the job offered and the bidder shall provide the same at the rate quoted. The PMEC, Berhampur reserves the right to reject any or all offers received in response to the tender or cancel or withdraw the tender notice without assigning any reasons, whatsoever.

#### 24. Bid Price and its validity

- a) The bidder shall give the total composite price inclusive of all levies and taxes (inclusive of taxes) as per the price schedule given in **Annexure VIII**.
- b) The bid is strictly on an item rate basis. However, the college may increase or decrease the quantity before placing the order, without assigning any reason thereof.
- c) The bidders must quote the final rates in clear and unambiguous terms in Indian Rupees only. No foreign exchange will be made available by the institute.
- d) Bidders are requested to quote their prices on firm & fixed basis for the entire period of the contract. Bids of the firms received with prices quoted on a variable basis shall be rejected without assigning any reason and no communication in this regard shall be made.
- e) The tender along with the prices shall remain valid initially for a period of 120 days from the date of opening of Part II of tender, which period may be further extended by mutual agreement in writing by bidder and the bidder shall not cancel or withdraw the tender during this period.

#### 25. Award of Contract: Placement of Order

a) The institute shall consider the placement of work order for the job which has been found technically, commercially and financially acceptable. The institute reserves the right to counter offer price against the price quoted by any bidder.

b) The evaluated lowest bidder will be awarded the work order to execute the work. Since the Institute has to ensure the seamless integration of the CCTV surveillance system with Wi-Fi system & existing network infrastructure for resource optimization, the bidder should submit a logical execution report with its diagram (Pre-network design document) for approval of the technical committee/ Professor In Charge (PIC). After due approval of report, the work order shall be issued.

#### 26. Performance Bank Guarantee

The successful Bidder shall furnish Performance Bank Guarantee within 21 days after the issue of work order for an amount equal to 5% (Five Percent) of the Contract Price in favor of "Principal, Parala Maharaja Engineering College, Berhampur" issued by any Nationalized Bank valid up to sixty (60) months (**Annexure-VII**).

The Performance Bank Guarantee shall be refunded after sixty (60) months from the date of successful completion of the work as per order.

No interest will be paid on Performance Bank Guarantee/ Earnest Money Deposit.

The Performance Bank Guarantee is liable to be deducted/forfeited for any or all the following reasons:

- a) Unusual delay in complying the service request (if any).
- b) Termination of contract or delivery defaulters.
- c) Any default, failure or negligence in fulfilling the contract, Losses incurred by the Purchaser during warrantee period.

#### 27. Payment Terms

No advance payment is allowed by the Purchaser to the supplier for any deal. The standard payment terms (subject to recoveries, if any) upon submission of required documents shall be as follows:

The supplier should submit the bills in triplicate on printed forms only. The billing must be done with GST billing norms. The 90% of the billed amount will be released only after receiving the items in good condition, successful installation, demonstration and commissioning of the IP-based CCTV Surveillance System on premises as per the specification along with other terms and conditions stipulated in the work order and certified by PIC (CIF). The balance 10% will be released after 60 days of satisfactory on-site performance from the final date of installation and commissioning of all hardware against the Bank Guarantee of 5% of the total project value. All payments will be released based on separate invoices submitted to the college by the bidder.

#### 28. Standard Warranty and Comprehensive Annual Maintenance Contract

The bidder will provide Standard Warranty/guarantee for all hardware (equipment /spares/accessories), software etc and software for complete CCTV network System for five years. However, if any individual component has standard warranty more than five years offered by manufacturers, the same will prevail.

The bidder shall provide onsite support/ free maintenance/services for first year only. Further, after one year of standard warranty for free maintenance, the bidder should be able to provide free maintenance/services through CAMC for remaining 4 years for complete CCTV System and the cost of which should be quoted separately for 4 years. It is the bidder's responsibility to handle all maintenance tasks, whether minor or major, and to have adequate standby equipment on hand to ensure the system remains functional within 24 hours of any disruption.

- a) The successful Bidder has to warrant that the Goods supplied under this Contract are new, unused, of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the work Order.
- b) The successful Bidder further has to warrant that the Goods supplied under this Work Order shall have no defect arising from design, materials or workmanship (except when the design and/or materials required by the Institute's specifications) or from any act or omission of the successful Bidder, that may develop under normal use of the supplied goods.
- c) All the equipment including the accessories supplied as per the technical specification as mentioned in the bidding document should carry standard warranty (including all spares and accessories) for a period mentioned in this documents. During this period, the successful Bidder shall replace all defective parts / accessories/consumables and attend to all repairs/break downs and undertake stipulated number of preventive maintenance visits to every user installation site. The cost of spare parts for all replacements has to be borne by the successful Bidder during warranty period. The items which are not covered under warranty should be clearly mentioned along with rate of the items.
- d) On expiry of the comprehensive warranty period, the successful Bidder shall be willing to provide after sales support for an additional period prescribed in this document.
- e) The prospective Bidder shall submit an undertaking from the Original Equipment Manufacturers (OEM) that they are willing to provide spare parts for the period of

warranty as mentioned and also during the additional CAMC period, if awarded. The OEM shall also assure continuity of service to their product, in the event of change in dealership or the Bidders – their existing dealers couldn't provide service during the warranty / CAMC period. The undertaking from OEM is an essential document forming part of the Technical Bid, without which the tenders will be rejected summarily in the first round itself.

- f) After sales service centre in Bhubaneswar/Berhampur (Odisha) should be available as a part of the pre-qualification and the Bidder shall provide proof of their capability to undertake such maintenance/repair within the stipulated time.
- g) The successful Bidder shall provide preventive maintenance as per the frequency mentioned in this document during the warranty period. The Bidder shall attend any number of break down/repair calls as and when informed by the institute authority without any extra cost.
- h) Upon receipt of such notice for repair/breakdown from the institute, the successful Bidder shall, within the period as specified in this document, and with all reasonable speed, repair or replace the defective goods or parts thereof, without cost to the college.
- i) If the successful Bidder, having been notified, fails to rectify the defect(s) within the period specified in this document, the Institution may proceed to take such remedial action as may be deemed necessary, at the successful Bidder's risk and cost and without prejudice to any other rights which the Institution may have against the successful Bidder under the contract.
- j) Failure to attend the repairs in time or failure to attend the stipulated preventive maintenance visit or failure to replace the defective equipment or to provide stand by equipment if the fault/down time exceeds the stipulated period or to ensure the stipulated up-time in an year shall lead to forfeiture of the performance Bank Guarantee and/or may lead to blacklisting/debarring of the defaulting Bidder.
- k) The equipment which requires quality assurance test shall be done at free of cost immediately after installation, during the comprehensive warranty period, by the demand of User and also when major spares are replaced.
- Any mandatory approval required for installation shall be obtained by the successful bidder in liaison with the respective authorities.
- m) The Bidder shall submit the parameters which require calibration and the frequency of calibration required.

- n) The Bidder shall undertake on-site calibration of the equipment every year as part of the after sales service during the period of comprehensive warranty, or on demand from the user.
- o) The Bidder shall also have to submit whether periodic replacements of consumable items are required for proper functioning of their quoted machine/Equipment If yes they should submit the list of such consumables along with price list and frequency of replacement per year, if the same is not replaced free of cost during warranty / guarantee period.
- p) The offered warranty also includes:
  - i). Visits to the user institutions at frequencies prescribed as part of preventive maintenance.
  - ii). Testing & calibration as per technical/service/operation manual of the manufacturer or as per the period specified or as per the demand of the user.
  - iii). Quality Assurance tests (if applicable).
  - iv). The cost of labour for all repairs/ and all spares required for replacement during repairs all kinds of accessories
  - v). The exclusion of warranty of any vital equipment parts will be compared with offers of other Bidders during evaluation of the bids and this may be taken into consideration in deciding the successful Bidder on the basis of expert advice.
  - vi). The Bidder shall provide up-time warranty of complete equipment as mentioned in this document, the uptime being calculated on 24 (hrs) X 7 (days) basis failing which warranty period will be extended as per the provisions of CAMC agreement.

#### **Comprehensive Annual Maintenance Contract: (CAMC)**

- a) The decision to enter into CAMC for onsite support/ services will be determined on the basis of cost and complexity of the equipment by the Institute, at its discretion, prior to the expiration of standard warranty period for onsite support.
- b) The Comprehensive Annual Maintenance Contract (CAMC) is otherwise an extended warranty that covers the repair & maintenance of a product beyond 1-year standard warranty. The charges for CAMC shall include on-site support/ repair & maintenance /routine check-up charges only (all equipment/spares are covered under 5-year standard warranty). All the terms and conditions agreed by the successful Bidder for executing 1-year Standard Warranty for free repair & maintenance shall be extended for next 4-years during the period of CAMC, only difference being the payment of CAMC

- charges for maintenance services is absent during the period of initial 1-year standard warranty.
- c) The cost of CAMC for next 4-years may be quoted along with service taxes, as applicable, if any. The taxes to be paid extra, to be specifically indicated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
- d) Failure/refusal on the part of the successful bidder supplying/installing the equipment to enter into CAMC with the Institute, at the end of the Comprehensive Warranty Period, if the Institute, as the case may be, desires so, may also result in the blacklisting/debarring of the Bidder.
- e) The successful Bidder shall also indicate the rates for the CAMC in price bid form and such rates are binding on the successful tenders after the expiration of the warranty period. The yearly rates for CAMC shall remain the one and the same as quoted in the price bid form for the extended years.
- f) Cost of CAMC will be considered for Ranking/Evaluation purpose.
- g) The payment of the agreed CAMC charges will be made as per frequency of payment after satisfactory completion of said period, on receipt of service report/ break down report from the user.
- h) Payment of Comprehensive Annual Maintenance Contract would be made on half yearly basis after completion of work and satisfactory working report. Firm have to provide a minimum Uptime Guarantee of 95% (95% of 365 Days) per year during the warranty period as well as during the Comprehensive Annual Maintenance Contract.
- i) While calculating the total unit price of the item/system to be procured, expenditure to be incurred in maintenance of the quoted item /system for a period of 1 year shall also be taken into consideration. Accordingly, it is mandatory for the bidders to submit the rate for Comprehensive Annual Maintenance Contract for maintenance for a minimum period of 4 years.
- **29. Demonstration of Technical expertise:** The firm/OEM/Bidder/ Agency will be required to demonstrate the technical capabilities of the entire network and functioning of each installed equipment at the place and time determined by the institute at their own expenses.

#### **30.** Other Conditions

- a) The successful bidder shall submit full address with phone no., fax no. and e-mail ID of the Contact person for after-sales service.
- b) The consignee shall not adopt call log procedure for call logging through IVR system of the OEM for service or complain launching.
- c) The successful bidder is required to take care of change in technology and supply higher version of the hardware available at the time of delivery at the same total cost as per the order. The operating manuals and tools must be supplied.
- d) No interest on any deferred claim arising out of this purchase shall be payable in any case whatsoever. No payment will be made for goods rejected at site during installation and commissioning.
- e) The Purchaser will not pay separately for transit Insurance. The supplier is completely responsible for the delivery of goods in perfect condition and shall replace/ rectify the missing/defective parts if any at his own cost.
- f) The goods to be supplied under the Contract shall be fully insured against loss or damage incidental to the manufacture or acquisition, transportation, storage & delivery of the goods from the Warehouse / Factory / Ex- shop of the supplier to the delivery on "All Risk" basis including war Risks and Strike.
- g) The bidder should have enough spare parts and backup configuration and setup etc. to provide standby in case of any repair in the equipments, cables, software etc., and the repair/placement of the original equipment should be done within 24 hours.
- h) The bidders must include 5 years of 24×7 hardware & software support, threat intelligence subscription and any other annual fee required as part of the bidder's solution.
- i) The bidders must perform monthly post-implementation health checks/preventive maintenance throughout the period (60 months) to ensure the solution is correctly configured and functioning optimally on-site. A detailed report of each visit must be submitted to the Professor In Charge (PIC). The AMC amount will be disbursed to the bidder semi-annually based on these reports. These health checks must be conducted proactively, without requiring any request from the Institute.
- j) All bidders should watch and follow everyday our website <a href="www.pmec.ac.in">www.pmec.ac.in</a> for any updation.
- k) The Institute reserves the right to cancel an item as ordered or cancel the whole order, if the college does not agree to a change of specification suggested by the bidder or if the

- bidder is not able to supply an item as per the changed specification required by the college or if there is no agreement on the revision price.
- The Institute may reject the bid even if it is accepted but the successful bidder fails to execute any of the terms and conditions mentioned herein.
- 31. Jurisdiction and Right to Amend Rules: The Institute reserves the right to amend the rules of operation whenever and wherever considered necessary and appropriate. The same shall be intimated to the firm in due course. The Institute rules shall be binding for execution of the contract. Further, in case of any dispute arising out of or in connection with the aforesaid contract either during subsistence of the contract or thereafter, the Principal of the Institute is the sole arbitrator to decide the same and his decision is final and binding on both the parties. If differences persist even after attribution and there are compelling reasons to go to the court, it will be decided in the proper Court of Law at Berhampur, Ganjam District only within the State of Odisha.
- 32. Odisha Small Manufacturing Enterprises (OSMEs): Micro and Small Manufacturing Enterprises located in Odisha (OSMEs) shall be given relaxation as per Odisha Procurement Preference policy for Micro and Small Manufacturing Enterprises-2023 (MSME Department Notification No. 566/MSME dated 24.01.2024). To avail such relaxation the bidder must produce a valid Udyam Registration Number (URN) and submit an undertaking in the shape of an affidavit in the format as given in Annexure IX along with the technical bidding document.
- **33. Delivery & Billing Address** : The Principal,

Parala Maharaja Engineering College, Sitallapalli, PO: Tanganapalli, Berhampur,

Dist. Ganjam (Odisha) 761003.

#### SCOPE OF WORK

The scope of the work is to provide Turnkey Solution that 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 CCTV Surveillance System for Classrooms and College Campus at PMEC Berhampur.

#### **Overview and Ensuring Solution of CCTV Surveillance System:**

- 1. The CCTV Integrated Video Surveillance system shall be IP based & ONVIF System compliant with a distributed architecture having a separate control room for the viewing facility at PMEC Berhampur. Day and Night Surveillance Cameras shall be used at the required location. All the cameras should be capable of recording all the activities even at zero light and if any hard disk is crashed/defected then the bidder shall recover footage without data loss.
- 2. The proposed Solution should allow PMEC officials to centrally monitor its facilities. Any kind of configuration/setting done by the bidder without any cost.
- 3. 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.
- 4. The system should be provided with weatherproof IP dome cameras, PTZ & fixed bullet cameras, lenses, housing & mountings to capture video with which, would be viewed & controlled through the Video Management Software, recorded, and stored.
- 5. Supply, installation, testing & commissioning of 1 KVA offline UPS for the CCTV system in the field side rack where UPS supply is not available. 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.
- 6. The NVR shall make continuous recording of all cameras for 24 hrs × 7 days with hardware should have adequate storage for a period of 15 days. If necessary, additional storage in the 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.
- 7. Laying, terminating & connecting Single mode 6-core Optical Fiber cable (OFC) in ring Topology with redundancy between cameras & control room by using necessary

- Accessories like LIU, pigtail, fiber patch cords etc. The proposed Solution should allow Institute officials to locally and centrally monitor its facilities from a remote location on a Portable/Fixed personal computer monitor.
- 8. Wall mounting of Racks with 24-p patch panel & 24-p PoE switches in different locations with power supply provision
- 9. Installation of I/O port in position equals to number of cameras.
- 10. Supply & Laying of Cat-6 UTP from switch to I/O port with casing & capping.
- 11. Supply & installation of weatherproof enclosure and surge & lightning protection for PTZ camera.
- 12. 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.
- 13. 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 PMEC personnel in all aspects of system design, theory of operation of equipment, functional details, troubleshooting and familiarization with systems as per the scope of work, etc.
- 14. 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.
- 15. The materials offered by the Bidder as covered under the specifications of this work shall be fully in Compliance with the requirements stated herein.
- 16. The bidder has to lay a new OFC for the CCTV network separately if required. This should be surveyed before bidding. The fiber cable laying through HDPE Pipe/ GI pipe as required in a 1-meter depth underground. The cable route marker shall be installed at the ground as required without any extra charges as per the direction of the Engineer in charge.
- 17. 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, PMEC has the right to call the

- bidder & bidder has to provide the event, time, day, Motion, etc. Recording to PMEC official.
- 18. 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. Nothing extra shall be paid on this account.
- 19. Chases, holes & drilling works, etc. shall be done using power-operated tools at the cost of the Contract. No extra will be paid for the same.
- 20. 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.
- 21. After all components (Cameras, NVRs, NVMS data switches, etc.,) have been commissioned, the vendor shall verify the overall system performance as specified.
- 22. Prior to system program commissioning, verify that each component has been installed according to the tender requirement and test, and bring on-line.
- 23. 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.
- 24. Establishing CCTV control room with desired configuration, operation, monitoring & maintenance with Supply of one high resolution 55" LED Display for monitoring purposes, installation, configuration & customization of video software from the Control Room.
- 25. 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.
- 26. 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
  - Video Management and Software specification
  - ❖ Test Records and Commissioning Documents.
  - Diagrams and Wiring connection.
  - ❖ Operation and Maintenance Manual

- ❖ As-built drawings & rack elevation along with patching details i.e. acrylic laminated (Hard copy of visible size must be fixed on the wall of each rack lactation along with their soft copy)
- ❖ Warranty certificate of the installed products on the letterhead of OEM with duly signed and stamped.
- 27. The PMEC 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 switchover 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 PMEC at no extra cost.

#### **Installation and Commissioning**

The Supplier shall be liable to complete all installation and commissioning of the IP based CCTV Surveillance System at the site within 30 days from the date of receipt of the work order. All packing must be opened at the site and handed over to the consignee, at the suppliers cost in presence of our Technical Committee Member (s)/ PIC (CIF). Installation and Commissioning shall include the following:

- a) Installation of the camera with manufacturing equipment/accessories should be done by the bidder as per OEM's manual/instructions.
- b) It will be the responsibility of the bidder to provide all necessary spares and consumables, which may be required during installation and commissioning, at no extra cost to the purchaser.
- c) The bidder is to bring their own instruments required for installation, testing, and commissioning, which can be taken back after completion.
- d) Installation must be completed within 30 days after delivery on site.
- e) The bidder should provide all necessary raw materials and consumables for running the system during commissioning.
- f) A completion certificate regarding the commissioning of CCTV surveillance system to be furnished by the bidder.
- g) After completion of the work a joint inspection report is to be submitted duly signed by the bidder and Technical Committee Member (s)/ PIC (CIF) of the Institute.

- h) In case, guaranteed performance is not established, the bidder shall be given the opportunity to rectify/replace the items of the network, and restart the 7 days continuous trial operation, at the risk and cost of the bidder.
- i) The bidders will have to follow all the security instructions applicable from time to time. If the engineers deputed by the firms are found guilty of any violation of security norms, they will be liable to be prosecuted under the law.

#### **Training and Documentation:**

Bidder shall provide complete technical documentation of hardware, related software, operating systems configurations, and customizations along with necessary diagrams. Bidder 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 7-days of installation, configuration, commissioning, monitoring, and troubleshooting of various equipment like NVR, storage, Backup system, access associated software, etc. to PMEC officials. The detailed contents, coverage, and Methodology for training will be decided mutually by the System Integrator and PMEC.

#### **PTZ Camera Poles**

The GI poles shall be of at least 9 mtr high. It shall be hot-dipped galvanized to withstand outdoor conditions. The necessary concrete support shall be provided below & above the ground. The pole shall be tapered while it is going up & shall have a necessary provision to mount PTZ/Fixed cameras with lock & various cable arrangements for camera & network equipment. 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.

# Scope of work during Standard Warranty (SW) and Comprehensive Annual Maintenance Contract (CAMC) period:

- 1. The agency shall be solely responsible for the comprehensive maintenance and upkeep the system in good condition. The CAMC includes only services for high-end & low-end equipment.
- 2. Quarterly preventive maintenance service should be done as per the maintenance schedule.
- 3. The preventive maintenance shall be prepared and submitted in advance to the PIC (CIF) by the Agency. The necessary shutdown may be taken with the prior permission of the PIC (CIF).
- 4. The unlimited breakdown service calls shall be attended as and when required 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 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 Annual Maintenance Contract (CAMC) 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 occur 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 PIC (CIF) 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 BG.
- 14. Schedule of Attendance of complaints: -

- a) In case of breakdown-within 4 hours call should be attained (Subject to complaint logged between 9:00 am to 6:00 pm, Monday to Saturday baring national holidays)
- b) The agency shall respond to all calls and provide  $7 \times 24$  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 BG amount by the PIC (CIF).
- 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 BG amount by PIC (CIF).
- 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 BG amount by the PIC (CIF).
- 15. All repairs/replacement/servicing/fixing of the entire CCTV system shall be carried out only by the contractor / Bidder. PMEC Berhampur shall not permit or allow any party other than the authorized contractor / successful bidder 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-ups 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 PMEC on account of spares.
- 18. Any modification of software/ software upgradation for the change in class of service and to provide the same additional facilities within the existing software provided in the system shall be covered under a warranty period of 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 Warranty/CAMC.

- 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 PIC (CIF).
- 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. 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 a minimum of spare and consumable materials in its custody for maintenance and attend the breakdowns.
- 26. Round-the-clock watch 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. 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 which will be executed after due approval of PIC (CIF).
- 28. 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 PMEC Berhampur and the agency shall furnish the final test result.

# Annexure- I Information Sheet of the bidders

S/L	Description The Didder	To be filled-in by the supplier			upplier
1	Bidder is an OEM or Authorized system Integrator			Authorized	
	, , ,	Integra			•
2	Name with Full Postal Address, phone No./e-mail of bidder	-			
3.	(i) If the Bidder is an OEM, he has to submit copy of				
	Industry Registration of offered products and Tax				
	Registration Certificate issued from competent authority.				
	(ii) If the bidder is an Authorized system Integrator, he has to				
	submit OEM's authorization letter, in original, on the				
	OEM's letter head duly signed by authorized signatory.				
4	Contact Person (s) details with Phone No/Mobile No				
	authorized during the tender Opening				
5	Details of Service Centre/Contact Person		_		
	a) Full Postal Address of Service Centre in Bhubaneswar/				
	Berhampur Only				
	b) Full Postal Address of Contact Person with phone				
	No./FAX/e-mail				
6	Copies of IT return of last three years				
7	Copy of balance sheet of last three years duly audited and				
	certified by Chartered Accountant.				
8	Copy of annual turnover statement certified by a CA.				
9	PAN No & TIN No of the OEM/ Authorized Dealer				
1.0	(Attach copy)				
10	GST registration details and up-to date filed return (Attach				
11	copy)				
11	BIS/ISO certification				
12	Details of DD towards the cost of tender documents				
	Issuing Bank:				
	Branch Name: Branch Code:				
	DD No: Date of Issue:				
12	Payable at: Date of Expiry:  Details of DD towards EMD				
13					
	Issuing Bank: Branch Name: Branch Code:				
	DD No: Date of Issue:				
	Payable at: Date of Expiry:				
14	Undertaking to provide operational training for Surveillance				
- '	System to one Official at Consignee site at least for 7 days.				
15	Undertaking to provide all after-sales support and				
	comprehensive annual maintenance support.				
DEC	1 7				

**DECLARATION:** We hereby certify that the information furnished above is full and correct to the best of our knowledge. We understand that in case any deviation is found in the above statement at any stage, the tender is liable to be rejected.

### Signature and seal of the Bidder

# Annexure - II Undertaking by the Bidder for unconditional acceptance of terms & Conditions

To The Principal, Parala Maharaja Engineering College, Sitalapali, Berhampur, Ganjam-761003.

**Subject:** Tender documents for Supply, Installation, Testing and Commissioning of IP Based Digital CCTV Surveillance System at PMEC, Berhampur

Dear Sir.

We have carefully examined and gone through the full content of the tender documents and have visited the installation site of the works and have acquired the requisite information affecting the tender. We hereby offer to quote and execute the works by the guidelines, terms and conditions laid down in the tender documents and accept **unconditionally** all the terms and conditions laid down in the tender call documents published on the website.

We warrant that the goods to be supplied under this contract as per the complete technical specifications laid in the tender call notice are new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials and all the services configured shall trouble-free function. In case of non-observance of any of the guidelines, terms and conditions mentioned in this tender document by us, we understand that our tender/work order (as the case) may be cancelled.

We further undertake that none of the Proprietor/Partners/Directors of the Agency/agency was or is Proprietor or Partner or Director of any Agency with whom the Government have banned /suspended business dealings. I/We further undertake to report to you immediately after we are informed but in any case not later than 15 days, if any Agency in which Proprietor/Partners/Directors are Proprietor or Partner or Director of such an Agency which is banned/suspended in future during the currency of the Contract with you.

The information / documents furnished along with the above application are true and authentic to the best of my knowledge and belief. I / we, am / are well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

We understand that you reserve the right to accept or reject any or all the tender either in full

or in part without assigning any reason thereof.

We hereby agree to supply, install, test and commission of IP-Based CCTV Surveillance System abiding by all terms and conditions of the tender document if we are offered to execute the contract and in default thereof, to forfeit and pay to you such sums of money as are stipulated in the conditions contained in the tender together with the written acceptance of the contract.

	Full Signature of Bidder
Place:	
Date:	

#### Annexure-III

#### List of the top three clients

The bidder must have successfully executed/completed Three similar services costing not less than the amount equal to 40% (Forty per cent) of the estimated cost or Two similar completed services costing not less than the amount equal to 50% (Fifty per cent) of the estimated cost; or One similar completed service costing not less than the amount equal to 80% (Eighty per cent) of the estimated cost in the last 3 years. The details of the projects must be given as follows.

SN	Details	Details of	Details of	Details of
		Client (1)	Client (2)	Client (3)
1	Project name, location and address			
2	Name, Address and telephone numbers			
3	Brief description of the work			
4	Contract No. /copy of work order (Enclose copy)			
5	Value of Contract as completed (Rs. in Lakhs)/Payment Certificate			
6	Date of issue of work order			
7	Stipulated period of completion			
8	Actual date of completion of work			
9	Work Completion Certificate			

(Add more columns in case of more than 3 clients)

#### **Annexure-IV**

#### **Technical Specification for CCTV Surveillance System installation**

The CCTV Surveillance system should be an IP based Digital CCTV surveillance system with the following descriptions of items. Technical specification mentioned here is the minimum, any better specification will also be accepted. A list of some known / approved makes for CCTV System as given below is indicative.

#### **List of Approved Makes**

Sl.	Description of item
No	
1	Camera & NVR: STQC Approve Make. Matching our All TQ & PQ For the tender
	clause.
2	Switch & Modules: Cisco / Netgear/Juniper /HP/Aruba / D-Link or equivalent make
	of repute
3	Passive component: Commscope / Siemon/ Panduit / Belden /D-Link or equivalent
	make of repute
4	TV: LG/ Sony / Samsung / Panasonic or equivalent make of repute
5	UPS: Vertiv / APC / Numeric / EATON/Emerson or equivalent make of repute
6	Rack: Valrack / Netrack / Schneider /APW / Comrack/D-Link or equivalent make of
	repute
7	HDPE: Narayani Polypipes/Shree Narayani/Utkarsh/Oriplast / Magnum or equivalent
	make of repute
8	PVC Pipe: AKG / Polycab / Finolex/ Precision/Sudhakar or equivalent make of
	repute
9	Electrical Socket box: Legrand / Schneider/ Anchor roma or equivalent make of
	repute
10	Battery: Exide/Amron (Amara raja) / Cummins or equivalent make of repute
11	Hard drive: WD/Seagate/Toshiba or equivalent make of repute
12	Other Item TO BE DIECIDED BY OFFICER –IN -CHARGE

Please note that camera & NVR should be of same make. Bidder should mention the make, model and technical specification of each item to be supplied in the technical bid. Bidder quoted for substandard products will not be considered and the offered quotations are liable for rejection.

	General Conditions apply to OEM for the items as specified in BOQ 1, BOQ 2, BOQ 3 and BOQ 4.			
Sl.	Eligibility Criteria	Compliance (Y/N) with Document		
1	All systems and components must be in compliance with CE, FCC, BIS, STQC certifications. Model-wise, series-wise details should be available on the BIS website.			
2	In case the OEM is not participating directly, the bidder should be an authorized reseller or channel partner of the OEM. An authorization letter from the OEM needs to be submitted in the original. And we are verified to OEM for bidding Letter for confirmation.			
3	OEM should have provide a letter for 05 years product warranty clearly specifies the warranty terms of the products supplied.			
4	OEM should have own online-dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India. Full disclosure should be made to ensure that the OEM can be contacted in case there are any requirements in future.			
5	The BIS certificate should be in the name of the quoted OEM. The CCTV OEM should have its own Factory in India.			
6	The CCTV OEM should not have been detected with any vulnerability before tender submission by STQC in any of its earlier projects. The OEM should give the same undertaking on their letterhead that they have never been rejected by STQC.			
7	The OEM should offer ISO 9001:2015, ISO 14001:2015, ISO 27001: 2013, ISO 45000:2018 for their manufacturing process.			
8	The OEM should 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 cyber security.			
9	The quoted CCTV 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 the declaration about its full membership.			
10	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 labeling which has been done, and such party shall be immediately rejected.			
11	The camera OEM should be a genuine manufacturer and should comply with HEVC H.265 and be listed on HEVC website on bid submission date.			
12	CCTV OEM should have manufacturing in India since last Five years and Foreign CCTV OEM should have manufacturing unit globally from last 10 Years. (Documentary evidence should be submitted).			
13	Malicious code Undertaking letter from OEM.			

14	OEM must be certified that the proposed model of CCTV product must not become obsolete/End of Life within a period of 5 years. If it gets EOL due to technology advancement then OEM will support with	
14	Equivalent or Higher model. The product which is nearing to the end of sales must not be proposed in the solution.	
	<u> </u>	
15	OEM should have supplied minimum 1,50,000 cameras till the tender submission date	
16	If the Hard disc crashes then Hard disc OEM should recover the data with replacement of Hard disc in warranty period.	
17	OEM should have crossed 3 Crores annual turnover as of 31 Mar 2024 with positive net worth.	
18	OEM should have an employee strength of over 200 pan-India.	
19	CCTV OEM should not have Hi Silicon chips in their camera for data security and same undertaking need to be provided.	
20	Camera & NVR should be from the same OEM for smooth integration.	
21	Products quoted should support MII initiative, OEM should provide land boarder certificate	
22	OEM should not be banned by any organization in India. The CCTV OEM should be an affiliated Industry Training Partner of an appropriate active and approved training council of NSDC in field of electronic security / CCTV/ Video Surveillance or similar for a period of minimum two years.	
23	The product datasheet of each item must be available on the OEM website for technical verification. Technical Specifications Compliance Certificate from CCTV OEM need to be submitted along with technical bids in OEM Letterhead.	
24	The Camera OEM should comply to General Data Protection Regulation (GDPR) & Waste Electrical and Electronic Equipment (WEEE). OEM should have valid EPR (Extended Producer Responsibility License/ Authorization No. from Central Pollution Control Board for Electrical & Electronic Equipment E-Waste. OEM need to submit its certificate with technical bid.	

### A. SPECIFICATION FOR IP CCTV CMERAS & NVR

BOQ	BOQ 1: 4MP Fixed Bullet Camera				
Sl. #	Parameters	Specification	Compliance Yes / No	Remarks	
1	Image Sensor	1/2 .8 inch Progressive Scan CMOS			
2	Max. Resolution	2688 (H) × 1520 (V)			
3	Shutter Time	Auto/Manual 1/3 s–1/100,000 s			
4	Min. Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.0001 lu x@F1.4 (B/W, 30 IRE), 0 lux (IR on)			
5	Lens Type	3.6mm fixed Lens			
6	Iris Type	Fixed			
7	IR Range	IR Range of 30 Mtr., Warm Light Range			

		of 30 Mtr. Or better.	
8	Main Stream	Main stream: 4MP (2688 × 1520)@1-	
0	Maiii Sticaiii	$25/30 \text{ fps}/(2560 \times 1440) @1-25/30 \text{ Sub}$	
		stream 1: $720p (1280 \times 720)$ , D1 ( $704 \times 720$ )	
		576)@1–25 fps/ (704 × 480)@1–30 fps,	
		VGA(640 × 480)@1-30fps, CIF (352 × 288)@1-35fps	
		240)@1-30fps/ (352 × 288)@1-25fps	
		Sub stream 2: D1 $(704 \times 576)$ @1–25 fps/	
		(704 × 480)@1–30 fps, VGA(640 × 480)@1-30fps, CIF (352 × 240)@1-	
1.1	Vidaa	30fps/ (352 × 288) @1-25fps H.265+/H.265/H.264+/H.264	
11	Video	n.203+/n.203/n.204+/n.204	
10	Compression	Constant Devile in Min Devile in an along	
12	Microphone	Support Built-in Mic, Built-in speaker	
13	Environment	Yes	
	Noise		
	Filtering		
14	Audio	G.711a, G.711Mu, PCM, G.726, AAC	
1.5	Compression	AFG OSCILLE	
15	Security	AES 256-bit Encryption, Configuration	
		encryption, trusted execution, Digest,	
		security logs, WSSE, account lockout,	
		syslog, video encryption, IP/MAC	
		filtering, HTTPS, trusted upgrade, trusted	
1.0	TT / TT 4	boot (T. 11 1 1 11 40 M)	
16	User/ Host	6 (Total bandwidth: 48 M)	
17	Protocols	FTP, IPv6, IPv4, DNS,RTCP, NTP, RTP,	
		HTTP, HTTPS, SNMP V3, TLS Version	
		1.2, TCP/IP, PPPoE, NFS, UDP, ICMP,	
		SSL, DHCP, SMTP, RTSPS, ONVIF	
		(Profile S, Profile G, Profile T), unicast,	
1.0	A1 E	multicast.	
18	Alarm Event	Network disconnection, IP conflict,	
		illegal access, Motion detection, Video	
		tampering, Audio detection, SMD	
		(human & Motor Vehicle), Security	
10	Wide	exception 120 dB	
19	Wide	120 UD	
	Dynamic Dynamic Dynamic		
20	Range(WDR)	120MD	
20	RAM/Rom	128MB	
21	Day/Night Switch	Day, Night, Auto, Schedule	
22	Image	BLC, HLC, 3D DNR	
	Enhancement		
23	Privacy Mask	4 programmable polygon privacy masks	
24	Ethernet	1 RJ45 10 M/100 M self-adaptive	
	Interface	Ethernet port	

25	DORI	Lens 3.6mm: 78.0 m (Detect), 31.2 m		
	Distance	(Observe), 15.6 m (Recognize), 7.8 m		
		(Identify)		
26	Reset Key	Yes		
28	Mirror	Support		
	Function			
29	SDK and API	Support		
30	Power	12 VDC ± 25%		
		PoE: IEEE 802.3af		
31	Start-up and	-40 °C to +60 °C (-40 °F to +140 °F)		
	Operating			
	Conditions			
32	Protection	IP67	_	
33	Warranty	60 Months		

Sl. #	Parameters	Specification	Compliance Yes / No	Remarks
1	Image Sensor	1/2 .8 inch Progressive Scan CMOS		
2	Max. Resolution	2688 (H) × 1520 (V)		
3	Shutter Time	Auto/Manual 1/3 s-1/100,000 s		
4	Min. Illumination	0.001 lux@F1.4 (Color, 30 IRE), 0.000 1 lux@F1.4 (B/W, 30 IRE), 0 lux (IR o n)		
5	Lens Type	Fixed 3.6mm fixed Lens		
6	Iris Type	Fixed		
7	IR Range	IR Range of 30 Mtr., Warm Light Range of 30 Mtr. Or better.		
8	Main Stream	Main stream: 4MP (2688 × 1520)@1-25/30fps/ (2560 × 1440)@1-25/30 Sub stream 1: 720p (1280 × 720), D1 (704 × 576)@1-25 fps/ (704 × 480)@1-30 fps, VGA(640 × 480)@1-30fps, CIF (352 × 240)@1-30fps/ (352 × 288)@1-25fps Sub stream 2: D1 (704 × 576)@1-25 fps/ (704 × 480)@1-30 fps, VGA(640 × 480)@1-30fps, CIF (352 × 240)@1-30fps/ (352 × 288) @1-25fps		
11	Video Compression	H.265+/H.265/H.264+/H.264		
12	Microphone	Support Built-in Mic, Built-in speaker		
13	Environment Noise Filtering	Yes		
14	Audio Compression	G.711a, G.711Mu, PCM, G.726, AAC		

15	Security	AES 256-bit Encryption, Configuration encryption, trusted execution, Digest,	
		security logs, WSSE, account lockout,	
		syslog, video encryption, IP/MAC	
		filtering, HTTPS, trusted upgrade, trusted	
1.0	TT / TT 4	boot	
16	User/ Host	6 (Total bandwidth: 48 M)	
17	Protocols	FTP, IPv6, IPv4, DNS,RTCP, NTP, RTP,	
		HTTP, HTTPS, SNMP V3, TLS Version 1.2, TCP/IP, PPPoE, NFS, UDP, ICMP,	
		SSL, DHCP, SMTP, RTSPS, ONVIF	
		(Profile S, Profile G, Profile T), unicast,	
		multicast.	
18	Alarm Event	Network disconnection, IP conflict,	
		illegal access, Motion detection, Video	
		tampering, Audio detection, SMD	
		(human & Motor Vehicle), Security	
		exception	
19	Wide	120 dB	
	Dynamic		
20	Range(WDR)	120MD	
20	RAM/Rom	128MB	
21	Day/Night Switch	Day, Night, Auto, Schedule	
22	Image Enhancement	BLC, HLC, 3D DNR	
23	Privacy Mask	4 programmable polygon privacy masks	
24	Ethernet	1 RJ45 10 M/100 M self-adaptive	
	Interface	Ethernet port	
25	DORI	Lens 3.6mm: 78.0 m (Detect), 31.2 m	
	Distance	(Observe), 15.6 m (Recognize), 7.8 m	
26	Denet V	(Identify)	
26	Reset Key	Yes	
28	Mirror Function	Support	
29	SDK and API	Support	
30	Power	12 VDC ± 25%	
		PoE: IEEE 802.3af	
31	Start-up and	-40 °C to +60 °C (-40 °F to +140 °F)	
	Operating		
22	Conditions	ID47	
32	Protection	IP67	
33	Warranty	60 Months	

BOQ 3: 2MP Outdoor PTZ Camera, 45X, 300mtrs IR or Better					
Sl. #	Parameters	Specification	Compliance Yes / No	Remarks	
1	Image Sensor	1/2 .8" progressive scan CMOS			

2	Shutter Speed	1/1 s to 1/30,000 s	
3	Min.	Color: 0.005 Lux@F1.6, B/W: 0.0005	
	Illumination	Lux@F1.6, 0 Lux@F1.6 (IR on)	
4	Zoom	$45 \times \text{optical}, 16 \times \text{digital}$	
5	Focal Length	3.95 mm-177.75 mm	
6	IR Distance	IR Distance: up to 300mtr or better	
		-	
7	Pan & Tilt	Yes	
	Range		
8	Movement	360°	
	Range (Pan)		
9	Manual Speed	Pan: 0.1° ~260° /s, Tilt: 0.1° ~120° /s	
	_		
10	Pan & Tilt	Pan: 0° to 360° endless, Tilt: -20° to	
	Range	+90°, auto flip 180°	
11	Pan & Tilt	Pan: $0^{\circ}$ to $360^{\circ}$ endless, Tilt: $-20^{\circ}$ to	
	Range	+90°, auto flip 180°	
12	Preset Speed	Pan: 300°/s, Tilt: 200°/s	
13	Patrol Scan	8 patrols, up to 32 presets for each patrol	
14	Pattern Scan	4 pattern scans	
15	Region of	8 fixed regions for each stream	
	Interest (ROI)		
16	Max	$2MP (1920 \times 1080), 1MP (1280 \times 720),$	
	Resolution	D1 (704 $\times$ 576), CIF (352 $\times$ 288)	
17	Number of	Main stream: 2MP/1MP/D1 @(1-25/30	
	Streams	fps)	
		Sub stream 1: 2MP/1MP/D1 @(1–25/30	
		fps)	
		Sub stream 2:D1/CIF @(1–25/30 fps)	
		Sub stream 3: D1/CIF @(1–25/30 fps)	
	Two-Way Talk	Support	
19	Protocols	Pv4, IPv6, HTTP, HTTPS, ARP, RTSPS,	
		SMTP, SFTP, DHCP, DNS, UPnP, NTP,	
		Multicast, NFS,	
		PPPoE, SNMP V1/V2/V3, ICMP,IGMP,	
		ONVIF (Profile S, Profile G, Profile T), Unicast, Multicast	
20	Certificates	MTBF Certificate from STQC,	
20	Certificates	EMI/EMC, ISO9001, STQC approved	
		compliance report	
21	SR 332	Quality Level II	
22	Storage	SFTP, NAS, Micro SD card (Support	
	2.01450	max. 512 GB).	
23	Cyber Security	AES 256-bit Encryption, Configuration	
	- 5 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	encryption, trusted execution, Digest,	
		security logs,	
		WSSE, account lockout, syslog, video	
		encryption, IP/MAC filtering, HTTPS,	

		trusted ungrada	1
		trusted upgrade, trusted boot	
24	Wide Dymanie		
24	Wide Dynamic Range(WDR)	120 dB	
25	SNR	> 52 dB	
26	Defog	Digital defog	
27	Image	BLC, HLC, 3D DNR,	
	Enhancement	-, -, ,	
28	Privacy Mask	24 programmable polygon privacy	
		masks, mask colour or mosaic	
		configurable	
29	Ethernet	1 RJ45 10M/100M self-adaptive Ethernet	
	Interface	port	
30	On-board	Built-in memory card slot, support micro	
	Storage	SD/SDHC/SDXC card, up to 256 GB	
31	Alarm	7/2 channel In/Out	
32	Audio	1 input (line in),	
		1 output (line Out)	
33	Reset	Yes	
34	Alaram Event	Motion/Tampering detection, audio	
		detection, network disconnection	
		detection, IP conflict	
		detection, memory card state detection,	
		memory space detection	
35	Smart Event	Line crossing detection, intrusion	
		detection, region entrance detection,	
		unattended baggage detection, object	
		removable detection, audio exception	
		detection	
36	Power	24 VDC, 2.5 A ± 25% PoE+ (802.3at)	
37	Operating	−40 °C to +70°C	
	Condition		
38	Protection	IP67, IK10, TVS 8000V lightning proof,	
		surge protection, voltage transient	
		protection	
39	Mounting	Suitable Mounting Brackets to be	
	Brackets	provided for pole & wall mount as per	
		site requirement.	
40	Accessories	PTZ with proper mounting bracket and	
		power supply	
41	Warranty	60 Months	

BOQ 4: 128 Channel Network Video Recorder (NVR) with 08-HDD slot						
Sl #	Parameters	Specification	Compliance Yes / No	Remarks		
1	IP Video Input	128-ch				

2	Incoming	512 Mbps	
	Bandwidth		
4	HDMI 1	Supported	
	Output		
5	HDMI 2	Supported	
	Output		
6	VGA 1	Supported	
	Output		
7	VGA 2	Supported	
	Output		
8	Video Output	HDMI 1 and VGA 1 provide simultaneous	
	Mode	video output, and work as the main output;	
		HDMI 2 and VGA 2 provide simultaneous	
		video output, and work as the auxiliary	
		output	
9	Audio Output	2-ch, RCA (Linear, 1 KΩ)	
10	Two-Way	1-ch, RCA (2.0 Vp-p, 1 KΩ, using the	
	Audio	audio input)	
11	Decoding	H.265+/H.265/H.264+/H.264	
	Format		
12	Recording	32MP, 24MP, 16MP, 12MP, 8MP, 6MP,	
	Resolution	5MP, 4MP, 3MP, 2MP, 960p, 720p, D1,	
		CIF, QCIF	
13	Synchronous	16-ch	
	playback		
14	Decoding	AI disabled: 2 channel 32 MP@30fps, 2	
	Capability	channel 24 MP@30 fps, 4 channel 16	
		MP@30 fps, 5 channel 12 MP@30 fps, 8	
		channel 8 MP@30 fps, 10 channel 6	
		MP@30 fps, 12 channel 5 MP@30 fps, 16	
		channel 4 MP@30 fps, 32 channel	
		1080p@30 fps, 64 channel 720p@30 fps	
		AI enabled: 1 channel 32 MP@30 fps, 1	
		channel 24 MP@30 fps, 2 channel 16	
		MP@30 fps, 4 channel 12 MP@30 fps, 6	
		channel 8 MP@30 fps, 8 channel 6	
		MP@30 fps, 8 channel 5 MP@30 fps, 12	
		channel 4 MP@30 fps, 24 channel	
		1080p@30 fps, 48 channel 720p@30 fps,	
4 -		64 channel D1@30 fps	
15	Audio	G.711a, G.711u, PCM, G726	
1.0	Compression	THE THE PROPERTY OF A PROPERTY	
16	Network	HTTP, HTTPS, TCP/IP, IPv4, IPv6, UDP,	
	Protocol	NTP, DHCP, DNS, SMTP, UPnP, IP	
		Filter, FTP, DDNS, SNMP, Alarm Server,	
		InstaOn, Auto Registration, ISCSI, ONVIF	
		23.06(Profile T; Profile S; Profile G), CGI,	
		SDK.	

17	Network Interface	2 (10/100/1000 Mbps Ethernet port, RJ-45)	
18	RAID Type	RAID 0/1/5/6/10	
19	Serial Interface	4 USB (2 front USB 2.0 ports, 2 rear USB 3.0 ports), 2 HDMI, 2 VGA, 2 RS485 (1 port for half duplex serial communication, 1 port for full-duplex serial communication), 1 RS232, 1 eSATA	
20	SATA	08 SATA interfaces	
21	eSATA	1 eSATA interface	
22	Capacity	Up to 20 TB capacity for each disk	
23	Alarm In/Out	16/8	
24	USB	Front panel: $2 \times USB 2.0$ ; Rear panel: $2 \times$	
	Interface	USB 3.0	
25	Power	100–240 VAC, 50/60 Hz	
	Supply		
26	Consumption	≤ 50 W (without HDD)	
27	Working	-10 °C to 55 °C (14 °F to 131 °F)	
	Temperature		
28	Working	10% to 90%	
	Humidity		
31	Warranty	60 Months	

#### B. <u>SPECIFICATION FOR ACTIVE & PASSIVE MATERIALS</u>

	General Conditions applied to OEM/ Bidders for the items as specified in BOQ 5 TO BOQ 19.			
Sl. #	Eligibility Criteria	Compliance (Y/N) with Document		
1	Warranty declaration in OEM letterhead mentioning the product Model No.			
2	Bid Specific Authorization in OEM letter head.			
3	Bid Specific Malicious code certificate.			
4	Product's features must be mentioned in the OEM Data sheet and must be available in OEM global site.			
5	All Active, Passive & Rack Components like switch, DAC Cable, SFP Module should be from Single OEM			
6	OEM should be ISO-9001, ISO-14001, ISO-45001 certified			
7	OEM annual turnover should be min 500 Cr during last 3 years.			
8	OEM should have TOLL FREE support number. Escalation matrix to be submitted with the bid.			
9	OEM Should have local presence in Odisha, recent Telephone bill / Electric bill / Trade license/ agreement copy etc. Documents should be attached.			
10	OEM should have direct or authorized service center in Odisha, Documents should be attached. (In OEM's Letter Head)			

11	OEM should provide land boarder certificate	
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BOQ 5	BOQ 5: 28 Port Giga Layer 3 Managed Fiber Switch				
S. No	Specification	Requirement	Compliance (Yes/No)	Remarks	
1	Type of Switch	Managed, Layer-3 Core non chassis based Switch			
2	Technology	Non-PoE			
3	Number of 1G/10G dual mode supported SFP+ Ports	24 or above			
4	Number of Uplink Ports	4 or above (40G/100G QSFP28)			
5	Management Port	1 Console, 1 USB, 1 Management Port (RJ-45)			
6	Switching Capacity (Non-Blocking)	1.2 Tbps or above			
7	Through Put	950 Mpps or above			
8	Operating System	Available			
9	Number of interface slot	28			
10	Number of Power supply (with redundancy)	2			
11	Console port	available			
12	Support for virtual chassis	yes			
13	Switching Capacity (Gbps)	1280			
14	Throughput (Mpps)	952			
15	VLAN	Port-based VLAN, IEEE 802.1Q, Private VLAN, MAC VLAN, Q in Q & Selective Q in Q, GVRP and other standard features			
16	Advance Layer 3 Features	IPv4 - Static routing, RIP v1/v2, OSPF, BGP, PBR, BGP IPv6 - IPv6 Static Routing, RIPng, OSPFv3			
17	Security Features	Port isolation, Port security, MAC sticky DHCP Snooping and option 82, DAI & IP source guard, IEEE 802.1x, Radius and Tacacs+  L2/L3/L4 ACL flow identification and filtration Anti attack from DDoS, TCP's SYN			

		Flood, UDP Flood, etc.
		Broadcast/multicast/unknown
		unicast storm-control and other
		standard features
18	IPv6 Ready	IPv6 compliant/configurable
10	II vo Ready	From Day 1
		Bandwidth Control
19	QoS	Classification based on ACL,
19	Q05	VLAN ID, COS, DSCP
		Policy Based on port & VLAN
20	Redundant Power Supply	Included from day-1
21	Warranty	60 Months
22	Standards	RoHs Compliant
		HTTP, HTTPS, SSLv3, Telnet,
23	Management	SSH V1/V2, Local Serial Port,
23	Protocol	SNMPv1/2/3, RMONv1/2,
		LLDP, NTP, Ping, Trace route

BOQ	BOQ 6: 24 Port Giga PoE Layer 2 Managed Switch				
Sl. #	Specification	Compliance Yes / No	Remarks		
1	Switch with 24 nos 10/100/1000 Mbps PoE Port and 4 nos 1000 Mbps RJ-45/SFP combo ports				
2	SFP support for 1000 BaseSX,1000BaseLX,1000BaseTX				
3	The Switch shall have Non-blocking wire speed switch fabric				
4	The Switch shall have Min. 56 Gbps Back plane or higher				
5	The Switch shall have Min 41 million pps or higher				
6	The Switch shall support Min. 8 K Mac address				
7	The Switch Should support Jumbo Frame (9k Bytes)				
8	The witch Should Support PoE Capable Port 1 to 24				
9	The Switch Should Support PoE power Budget of 193W				
10	The Switch should have IGMP Snooping v1,v2 & IGMP v3				
11	The Switch should have Spanning tree 802.1D STP, 802.1W RSTP & 802.1s MSTP				
12	The Switch should have 802.3ad Link Aggregation Up to 8 groups/8 ports per group				
13	The Switch should have Port Mirroring One to one/Many to One				
14	The switch should support 4 nos IP interface				

15	The switch should support 124 nos IPv4 static route & 50 nos IPv6 static route	
16	The LAN switch shall have IEEE 802.1Q VLAN encapsulation. Up to 255 VLANs per switch.	
17	It shall have Auto Surveillance VLAN, Asymmetric Vlan & Auto Voice Vlan	
18	It shall support 802.1p Priority Queues (8 queues per port )	
19	Queue Handling mode: WRR & Strict Mode, Class of service shall be based on DSCP,802.1p queues,IPv6 Traffic class	
20	The LAN switch shall support IEEE 802.1x to allow dynamic, port-based security, providing user authentication.	
21	It shall support DHCP Server Screening	
22	It shall support Network Timing Protocol (NTP/SNTP) to provide an accurate and consistent timestamp to all intranet switches.	
23	It should support Compact CLI through Telnet, SNMPv1/V2c and V3, LLDP, LLDP-MED.	
24	Switch should be CE,FCC,UL,VCCI, certified	
25	IPv6 compliant/configurable From Day 1	
26	OEM Warranty: 60 Months or Above	

BoQ	BoQ 7: 24 Port UTP Patch Panel (Fully Loaded)			
Sl. #	Specification	Compliance Yes / No	Remarks	
1	24-Port Cat6 UTP Patch Panel			
2	Patch Panel made of powder coated steel, in 24 port configurations.			
3	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit.			
4	Have port identification numbers on the front of the panel.			
5	Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel			
6	IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools			
7	The Cat-6 transmission performance is in compliance with the ANSI/TIA/EIA 568C.2 standard			
8	Mechanical Characteristics:			
9	Plastic Housing: PBT + Glass Fiber, UL94V-0 rated			
10	Jack Connector			
11	Operating Life: Minimum 750 insertion cycles			
12	Material: Phosher bronze with nickel plated			
13	Contact Plating: 50µ" Gold plated on plug contact area			
14	IDC Connector			

15	Plastic Housing: Polycarbonate	
16	IDC Contact Plating: Phosphor bronze with tin plated	
17	Wire Accommodation: 22-26 AWG solid	
18	Contact resistance: 20Milliohms	
19	Insulation resistance: 100 MegaOhms @ 500V DC	

BoQ	BoQ 8: UTP Patch Cord - 1 Mtr				
Sl. #	Specification	Compliance Yes / No	Remarks		
1	Category 6 UTP Patch Cord – 1Mtr				
2	The work area equipment cords shall, at a minimum comply with proposed ANSI/TIA/EIA-568-C.2 Commercial Building Cabling Standards Transmission Performance Specifications for 4 pair Category 6 Cabling.				
3	Equipped with modular 8-position modular plugs on both ends, wired straight through with standards compliant wiring.				
4	Mechanical Feature of Cable:				
5	Conductor size: 24 AWG multi-strands bare copper				
6	Jacket: FR-PVC				
7	Mechanical Feature of Plug:				
8	Operating life: Minimum 750 insertion cycles				
9	Contact blade: Copper Alloy				
10	Operating temperature: -10°C to 60°C				
11	RJ45 Plug & Boot Material: Clear Polycoarbonate for RJ-45 And PVC for Boot				
12	Factory Crimped Patch Cord with Factory Moulded Boot				

BoQ	BoQ 9: CAT6 UTP Cable				
Sl. #	Specification	Compliance Yes / No	Remarks		
1	Category 6 Unshielded Twisted Pair 4 pair cable shall be compliant with ANSI/TIA/EIA-568-C.2 channel performance				
2	The 4 pair Unshielded Twisted Pair cable shall be UL Listed, ETL Verified				
3	All Category 6 cables shall meet or exceed the following characteristics:				
4	Mechanical Characteristics				
5	Construction: 4 twisted pairs separated by internal X shaped, 4 channel, full separator. Half shall not be accepted.				
6	Conductor dia: 23 AWG				
7	Insulation: polyethylene				
8	Pairing: Two insulated conductor twisted together				
9	No. of Pair: 4 pair twisted together				
10	Color of sheath: FR-PVC GREY- Single sheath				

11	Rip Cord should be available	
12	Sequential meter marking should be available	
13	Temperature Rating: (- 20 to +60 C)	
14	Packing: 305 Mtrs.	
15	Low Frequency Electrical Parameter	
16	Conductor Resistance (DC): 9.38 OHMS/100 MTR @20 Degree C. MAX.	
17	Resistance Unbalance: 5% Max	
18	Mutual Capacitance: 5.6 nF/100 mtrs Max.	
19	Capacitance Unbalance pair/ground: 330PF/100M MAX	
20	Nominal Velocity of Propagation: 69%	
21	Impedance: 100±15%OHMS	
22	Worst Case cable skew: 45ns/100m	
23	Generally confirming to EIA/TIA 568-C.2 and IEC/ISO 11801	

BoQ	BoQ 10: UTP Information Outlet, BACK BOX, FACE PLATE			
Sl. #	Specification	Compliance Yes / No	Remarks	
1	Single Port Cat6 UTP Information Outlet with Surface Mount Box			
2	Single Port			
3	Write on labels in transparent plastic window – supplied with plate			
4	Face Plate with auto spring shutter			
5	Should be able to support variety of jacks – UTP, STP etc.			
6	Category 6, TIA568 C.2			
7	All information outlets for 22-26 AWG copper cable shall:			
8	Use insulation displacement connectors (IDC)			
9	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits.			
10	Jack Specification:			
11	Plastic Housing: Polycarbonate, UL94V-2 rated or equivalent			
12	Operating Life: Minimum 750 insertion cycles			
13	Contact Material: Phosphor Bronze with nickel plated			
14	Contact Plating: 50 µinches gold on plug contact area			
15	IDC: Housing PC, UL 94 V-2, 568A/B configuration			
16	Operating Life: Minimum 200 Re-terminations			
17	IDC Contact Plating: Phosphor bronze with tin plated			
18	Operation Temp: -10 C to 60 C			
19	Keystone of I/O should be UL Listed. Back box should be of same make as keystone jack & face plate.			

BoQ	BoQ 11: Outdoor Network Enclosure (9U)				
Sl. #	Specification	Compliance Yes / No	Remarks		
1	9U Outdoor Rack conforming to DIN 41494 or equivalent industrial standard. Conforms to IP55 outdoor standards. Pole mounting provision on the rear side. Pole mounting brackets must be included from day-1. Construction: welded design with 1.2-1.5mm thick GI sheet, rigid frame that can be fixed to Pole, Wall & base,				
2	Adjustable 19" equipment mounting verticals provide the better mounting flexibility, Depth adjustable mounting slots				
3	Top panel with ventilation and cable entry from the bottom				
4	Cooling FANS (2 nos) mounted on Front door with top cover for rainwater and dust resistance				
5	Powder coated finish with pretreatment process meeting all industry standards.				
6	Side panels: Integrated type welded with Canopy and bottom cover				
7	Ventilation : Hood for Air inlet on front side				
8	Dimension (in mm) : 550w x 500d x 480h				
9	PDU: 3 socket 5Amp PDU				
10	One number horizontal PDU must be included in the rack				
11	Static load bearing capacity: min 20 Kgs				

BoQ	BoQ 12: 1G Single mode Transceiver				
Sl. #	Specification	Compliance Yes / No	Remar ks		
1	1000Base-LX Single Mode SFP Transceiver with Duplex LC Connector				
2	Support IEEE802.3z 1000BASE-LX				
3	Atleast 10Km distance support on single mode fiber interface				
4	Output TX Optical Power MAX.: -3dBm MIN.: -8 dBm				
5	Output RX Optical Power MAX.: -3dBm MIN.: - 24 dBm				
6	Sensitivity – 24 dBm				
7	Cable Type single-mode 9/125um fiber	•			
8	Operating wavelength: 1310nm				
9	Should be same make as switches.				

BoQ	<b>BoQ 13: 27U Floor Mounting Server Rack</b>				
Sl. #	Specification	Compliance Yes / No	Remarks		
1	19", 27U x 800mm width×1000mm depth Floor Standing Server Rack				
2	It should confirm to DIN 41494 or equivalent standard				
3	It should be welded construction with steel frame				
4	Single Lockable tough end glass front door				
5	Vented metal door at the back, Vented side panels				
6	19" Reduced Channel- loop type				
7	Powdered coated standard finish				
8	Top & Bottom welded cover with vented & cable entry exit cut outs				
9	4 sets of casters wheel				
10	4 sets of adjustable levellers				
11	2 Nos Roof Mounted Fan Unit				
12	Vertical Power Distribution Unit with 12nos. Of 5/15Amp round pin Indian style sockets				
13	Vertical & Horizontal Cable Manager				
14	Mounting Hardware set				
15	At least 4nos. Of FANs (360CFM) for cooling purpose				

BoQ	BoQ 14: Online UPS 10 KVA					
Sl. #	Specification		Compliance Yes / No	Remarks		
1	Rating Capacity (kVA/kW	10 kVA/10 kW				
2	INPUT- Voltage Range					
3	Voltage – Low Transfer	115/150/180 VAC ± 5 V (Based on load percentage 0 ~ 60% / 61 ~ 80% / 81 ~ 100%)				
4	Voltage – Low Comeback	140/175/205 VAC ± 5 V (Based on load percentage 0 ~ 60% / 61 ~ 80% / 81 ~ 100%)				
5	Voltage – High Transfer	300 VAC ± 5 V				
6	Voltage – High Comeback	285 VAC ±5 V				
7	Frequency	45 ~ 70 Hz				
8	Phase/Wire	Single-in, Line + Neutral + Ground				
9	Input Connection	100A 4W Terminal Block				
10	Power Factor	Up to 0.99 at 100% Linear Load				
11	Current THD (100% linear load)	<5%				

	OUTPUT				
12	Voltage	220/ 230/ 240 VAC Selectable			
13	Frequency Regulation	±1 Hz, ±3 Hz Selectable			
14	Voltage Regulation	±1%			
15	Rated Power Factor	1			
16	Output Connection	100A 3W Terminal Block			
17	Sine Waveform	100% Liner Load	<2%		
	Distortion	100% Non-Liner Load	<5%		
18	Frequency Stability	<0.2% (Free Running)			
19	Transfer Time AC-DC	0 ms			
20	Transfer Time (Inverter to Bypass)	4 ms			
21	Crest Factor	3:01			
		<105% continuous			
		106-110% UPS works with warning at battery mode and in			
		utility mode. 111-130% UPS			
		shuts down after 5min at			
		battery mode or transfer to			
	Overload Capacity (tolerance±1%)	bypass when the utility is			
22		normal.			
22		131-150% UPS shuts down			
		after 1min at battery mode or			
		transfer to bypass when the			
		utility is normal			
		>150& Immediately trip at			
		battery mode or transfer to			
		bypass when the utility is			
		normal			
	BATTERY	L as en i			
23	Battery Type	SMF battery			
24	Number of Batteries	20			
25	Battery AH	65			
26	Backup Time	60 min			
27	Battery Rack & Connectors	Powder coated battery rack /			
28	VAH	stand to be provided min 15600 VAH			
28	CHARGER	пш 13000 УАП			
29	Charging Current				
30	Floating Voltage (±1%)	274			
30	INDICATION 274				
31	Status On LED + LCD	Line Mode, Battery Mode, ECO Mode, Bypass Supply, Battery Low, Battery Bad/Disconnect, Overload, Transferring with interruption, UPS Fault			
	i	•	•		

			T T
32	Readings on LCD	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load Percentage, Battery Voltage, Inner Temperature.	
33	Self-Diagnostics	Front Panel Setting & Software Control, Upon Power-on, 24-hour routine checking	
	ALARMS		
34	Audible and Visual	Line Failure, Battery Low, Transfer to Bypass, System Fault Conditions	
	INTERFACE		
35	Standard	EPO/ROO, RS-232, USB	
36	Option	Dry Contact Relay, SNMP/WEB Card, RS 485 card	
37	Compatible Platforms	Microsoft Windows series, Linux	
38	Safety Standard	EN 62040-1, IS16242:2014	
39	EMC Standard	IEC/EN 62040-2	
40	Markings	BIS, CE, RoHS	
41	The ups rated for unity por	wer factor 10 KVA= 10 KW	
42	Online Double Conversion with isolation Transformer inbuilt at Input Side		
43	The UPS control logic shall incorporate state of the art digital signal processing		
44	The inverters shall utilize high speed pulse width modulation		
45	The UPS shall require rear or side access for maintenance or repair		
46	Cooling shall require air intake from the front and side and air exhaust from the rear of the UPS.		
47	field-replaceable	an with variable speed that are	
48	The UPS shall be capable to be synchronized with mains supply		
49	The UPS shall support frequency conversion		
50	The UPS shall manage, by software setup, cycling battery recharge and test automatically		
51	UPS shall be capable of integrated parallel operation up to N+4.		
52	Higher efficiency modes of operations such as ECO mode		
53	3-level inverter and rectifier technology		
	Certification:		
54	ISO 9001, "Quality Management System - Requirements."		
55		*	
	ISO 14001, "Environmental Management Systems -		

	Requirements with Guidance for Use	
56	ISO 45001: 2018 "Occupational Health and Safety	
57	Assessment CE Certificate (EN 62040-1: 2019, - Part 1: General and	
58	safety requirements for UPS )  CE Certificate (EN / IEC 62040-2: 2018, - Part 2: Electromagnetic accompatibility (EMC) requirements)	
59	Electromagnetic compatibility (EMC) requirements )  Surge - EN 61000-4-5:2014+A1:2017; ESD - EN 61000-4-2:2009; Power-frequency magnetic field - EN 61000-4-8:2010; Low-frequency signals - EN 61000-2-2:2002	
60	IEC 62040-3, "Uninterruptible Power Systems - Method of Specifying the Performance and Test Requirements." – From NABL approved testing agency	
61	RoHS Compliance	
62	BIS – Make in India required	
	System Characteristics	
63	<b>Input voltage:</b> 230 V, 50/60Hz single-phase, 1P + PE	
64	Input voltage window: +25 percent to -20 percent continuous @ 100% Load	
65	Warranty: 60 Months	
61	The OEM/bidder should be a supplier of UPS Systems for the last 10 financial years as on 31.03.2023 & need to produce supporting order copy.	
62	The product quoted by the OEM/bidder should be UE/CE Certified.	
63	The OEM should have an annual turnover of Rs. 3 crores for the last three financial years.	
64	The OEM/bidder should have net profit for the last three consecutive financial years	
65	The Bidder or its OEM should have regularly manufactured and supplied same Products to any Central /State Govt Organization / PSU / Public Listed Company for last 3 years.	
66	Dedicated toll Free Telephone No. for Service Support: BIDDER / OEM must have Dedicated toll Free Telephone No. for Service Support.	
67	Escalation Matrix For Service Support: Bidder / OEM must provide Escalation Matrix of Telephone Numbers for Service Support.	
68	The OEM should have Odisha GST number with service centre in Odisha including consignee's location to attend the complaints. All engineers should be under OEM's payroll.	
69	The bidder should have Odisha GST number & available near to the consignee location (Berhampur, Ganjam, Odisha) for immediate support / service (within 1-2 hrs) as required to attend the complaint.	

Sl.	2 15: 65 AH SMF Batter Specification	<u>.</u>	Compliance Yes / No	Remarks
1	Nominal Battery Voltage	12V	1657110	
2	Type of battery	<ul><li>a) Valve Regulated Lead Acid</li><li>(VRLA)</li><li>b) Sealed Maintenance Free (SMF)</li></ul>		
3	Battery AH ratings	65 AH		
4	Material of container	PPCP		
5	Battery Condition	Charged		
6	Dimensions( $L \times W \times H$ ) (mm × mm × mm)	As per relevant IS Specifications		
7	No. of cells per Battery (No.)	6 Cells for 12 Volt battery		
8	Replacement Warranty	Warranty shall be at least 2 years or manufacturer warranty period whichever is higher from the date of Installation and Commission of batteries in physically/operationally good condition.		
9	Connectivity	The supplier should ensure that the batteries to be supplied along with the battery racks, cables & lugs for interconnecting the each type (AH) batteries		
10	Standard	The batteries shall conform to JIS 8702C Standard or equivalent standards, UL (UL-1989) & CE Certified, Manufactured in ISO 9001, ISO 14001, ISO45001:2018 certified facilities		
11	Internal Resistance	Approx. 9.4 m $\Omega$ at 27 Degree		
12	Container Design	PPCP		
13	Short Circuit Current as per IEC	More than 1382 Amp		
14	Name of Manufacturer	Batteries should be delivered in original packing and the manufacturer's name should be either embossed or painted on the battery. Stickers are not allowed.		
15	Date of manufacturing	Within 3 months preceding the date of supply. The manufacturing month/ year shall be clearly embossed on the battery.		
16	Test reports	Test reports of batteries from accredited labs for batteries should		

		be enclosed.	
17	Mechanical characteristics	Batteries shall with stand mechanical stresses, vibrations and shocks occurring in normal transportation, handling and use.	
18	Manufacturing facility certification	ISO 9001, ISO 14001, ISO45001:2018	
19	Charging Voltage	13.8 V/battery	
20	Charging Current Max.	25% of rated capacity	
21	Temp. Compensation	± 30mV/battery/°C	
22	Operating Temp. range	-20°C to +60°C (50 to 60°C for shorter duration)	
23	Self-Discharge	< 4% per month at 27°C	
24	Capacity affected (Temperature at C20 hr rate)	40°C (104°F) 110% 27°C (80.6°F) 100% 0°C (32°F) 80% -15°C (5°F) 60%	
25	Capacity @ 27°C	55.90 Ah (10hr, 5.59 A, 10.5 V/battery) 51.40 Ah (5hr, 10.29 A, 10.2 V/battery) 36.30 Ah (1hr, 36.3 A, 9.6V /battery)	
26	Design Float life	10Years	

BOO	2 16:PVC pipe and flexible		
Sl. #	Specification	Compliance Yes / No	Remarks
1	Diameter:25mm		
2	Colour: White		
3	Length:30mtr		
4	Material: PVC		

BOQ 17:Camera mounting Box			
Sl. #	Specification	Compliance Yes / No	Remarks
1	Material : PVC		
2	Usage/Application : Junction Boxes		
3	Shape: Square		
4	Dimension : 4×4 Inch		
5	Mounting Type : Surface Mounting		

BOQ 18:Mounting Clamp for PTZ		
Sl. # Specification	Complied	Remarks

		Yes / NO	
1	Parameter: Vertical Pole Mount Bracket		
2	Color: Any Colour		
3	Feature : Suitable for speed mounting		
4	Material : Aluminum & Steel		
5	The bracket should be installed on flat wall		
6	The bracket is suitable for vertical pole mount of 67-127		
	mm diameter		
7	Load capacity of pole should be more than 3 times the		
	weight of camera and bracket		
8	Load capacity of clamp is 30KG		

BOQ	19: 9 Mtrs GI	pole for camera		
Sl. #	Specification		Compliance Yes / No	Remarks
1	General Specifications	9 Mtr Hot Dip Galvanized Octagonal Pole with Foundation Type Base Plate & Foundation Bolts (Dimensions for pole as Top Diameter 70mm, Bottom Diameter 155mm, Section Length-9000 mm, Thickness-3mm, Foundation Type Base Plate (250×250×16mm), Foundation Bolts (M24 X700/750MM 4Nos).with single type arm bracket 1500mm long made of 60mm dia pipe, suitable for PTZ camera fitting		
2	Pole Shaft	The pole shaft shall be made from sheet steel confirming to BSEN10025. 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 IS2062) with provision for fixing 4 foundation bolts. This base plate shall be fillet welded to the pole shaft at two location i.e. from inside and outside.		
3	Dimension	Pole Top Diameter 70mm, Bottom Diameter155mm, Section Length-9000 mm,Thickness-3mm, Base Plate (250×250×16mm), Foundation Bolts ( M24X700/750MM - 4Nos)		

4	Door Opening	The octagonal Poles shall have door of approximate 500mm length at the elevation of 500mm from the Base plate. The door shall be vandal resistance and shall be weather proof to ensure safety o fin side connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall 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.		
5	Material	Octagonal Poles-Steel Grade BSEN10025-S355 J0 or Equivalent Base Plate Fe 410 conforming to IS226/IS2062		
6	Pole Sections	The Octagonal Poles shall be in single section. There shall not be any circumferential weld joint.		
7	Galvanization	The poles shall be hot dip galvanized as per relevant Indian standards with average coating thickness of minimum 65micron.		
8	Fixing Type	The Octagonal Poles shall be suitable for bolting on a foundation with a set of four foundation bolts for greater rigidity.		
9	Bracket for fixing camera	The brackets shall be made of specified size. GI heavy duty pipe with minimum 1500mm long and minimum 48mm dia with necessary holding brackets, hold fast set suitable for Camera mounting.		
BOQ	20: 55"TV			
Sl. #		Specification	Compliance Yes / No	Remarks
1	Display Size 5			
2		40X2160(UHD)		
3	Backlight Unit Type: Direct			
4	Brightness: 40			
5	1,000,000:1	rast Ratio (Dynamic MCI(Hz)):		
6	`	ontrast Ratio: 1300:1		
7	Refresh Rate:	60Hz		
8	Video: Yes			
9	HDR(10Pro/H	,		
10		output): 10W+10W		
11	Digital (Terrestrial, Cable, Satellite): DVB-T2/C			

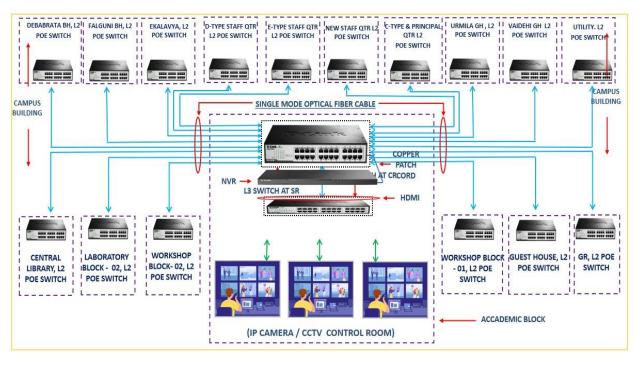
12	TT	
12	Hospitality Feature: Hotel Mode/PDM/Installer Menu,	
	One Channel Map, IP, Channel Manager; External	
	Speaker out (Int Variable/Fixed, 3.5mm, Stereo, Single-	
	ended Type (GND, L+, R+), 2W+2W with 80)	
	<b>Smart Feature</b> : web OS version (web OS 6.0), Smart Home (Launcher Bar), Web Browser Pre-loaded App	
	(YouTube only), SDP Server compatibility, Mood	
13	Display, Soft AP, Wi-Fi (Version) (802.11ac), Screen	
	Share (Miracast), Smart Share, Bluetooth Audio	
	Playback, HDMI-ARC (ARC, HDMI2)	
	Signage Feature: Vertical Setup, Fail over, Play Via	
	URL, NTP Server Setting, CISCO Certi. Compatibility,	
	Crestr on Connected (Network Based Control), DPM	
15	(Digital Power Management), Time scheduler, RTC	
	(Real Time Clock), NTP sync timer, BEACON, Embedded CM (contents manager), Embedded GM	
	(Group manager)	
	SUPERSIGNSWCOMPABILITY: Control/Control	
16	Plus, CMS (Premium), Simple Editor.	
	Input Interface:	
	<b>Set Side</b> : HDMI In (3(2.0)), Head phone Out (Phone	
17	Jack Type), RS-232C(D-Sub9pin/ Phone jack) (Phone	
	Jack,4pi)	
	Jack Interface:	
	Jack Interface.	
18	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage	
18	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical),	
18	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:	
18	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)	
	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:	
19	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN) Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz	
19 20	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3	
19 20	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1	
19 20 21	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:	
19 20 21 22	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic: Standby Power Consumption: Under0.5W	
19 20 21 22 23	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic: Standby Power Consumption: Under0.5W  Required Listing (Certification)	
19 20 21 22 23 24	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:  Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR	
19 20 21 22 23 24	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:  Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE	
19 20 21 22 23 24 25	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic: Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE  Accessories:	
19 20 21 22 23 24 25 26	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power: Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic: Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE  Accessories: Remote type: S-con	
19 20 21 22 23 24 25 26 27	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:  Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE  Accessories:  Remote type: S-con  Power Cable: Detached (1.5m,StraightType)	
19 20 21 22 23 24 25 26 27	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:  Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE  Accessories:  Remote type: S-con  Power Cable: Detached (1.5m,StraightType)  Warranty: 5years (60 Months)  DIMENSION (UNIT: mm kg):  VESA Compatible: 300x300	
19 20 21 22 23 24 25 26 27 28	Set Rear: USB(2.0), RF In ,Digital Audio Out (Optical), External Speaker Out (3.5mmphonejack), RJ45 (Usage Purpose)(LAN)  Power:  Power Supply: (Voltage, Hz)AC120V-,50/60Hz  Power Consumption(Max); 166.3  Power Consumption(Type): 140.1  Mechanic:  Standby Power Consumption: Under0.5W  Required Listing (Certification)  Safety: CB,CUTR  EMC: CE  Accessories:  Remote type: S-con  Power Cable: Detached (1.5m,StraightType)  Warranty: 5years (60 Months)  DIMENSION (UNIT: mm kg):	

32	Weight in Shipping: 19	
33	Size without Stand: 1235x715x57.5	
34	Size with Stand: 1235x772x232	
35	Size in Shipping: 1360x810x162	
36	Bezel Width (L/R/U/B): 0n Bezel: 12.8/12.8/12.8/19.9	

BOQ 21:Hard disk 10TB surveillance HDD			
Sl. #	Specification	Compliance Yes / No	Remarks
1	Capacity: 10TB		
2	Form Factor: 3.5-Inch		
3	Connector: SATA		
4	Transfer Rate: upto180MB/s		
5	Recording Technology: CMR		
6	Cache Size: 256MB		
7	Weight: 450gms		
8	Operating Temperature 0°C to 65°C		
9	Non-Operating Temperature : -40°C to 70°C		
10	Certifications: BSMI,ICES-003/NMB-003,CE,FCC,KC,Maghreb,RCM,UKCA,VCCI,CB-Scheme, TUV,UL		
11	Warranty: shall be at least 2 years or manufacturer warranty period, whichever is higher from the date of Installation		

#### CCTV SURVEILLANCE LOGICAL NETWORK DESIGN

PMEC, CAMPUS IP CAMERA , BERHAMPUR, GANJAM, ODISHA.-761003



## Annexure-V OEM AUTHORISATION LETTER

Original Equipment Manufacturer's authorisation letter (in Original Letter Head of OEM)

To				
The Principal,				
Parala Maharaja Engineering College,				
Sitalapali, Berhampur,				
Ganjam-761003				
J				
Subject: Direct Manufacturers Authorization				
Ref: Tender No:				
Name of Work: Supply, Installation, Testing and Commissioning of IP-based CCTV				
Surveillance System for Classrooms and College Campus at PMEC Berhampur				
Survemance System for Classrooms and Conege Campus at 1 MEC Bernampur				
Dear Sir,				
We, an established and reputable manufacturer of CCTV				
Surveillance Systemhaving Corporate/Registered office at				
(name of bidder) and having their office at				
(bidder's address) as our representative to submit the above				
biddt and subsequently negotiate and sign the contract with you for				
the supply of IP based CCTV Surveillance System manufactured by us and authorize the said				
firm to act on our behalf in fulfilling to supply, install, train & commission and provide all				
technical support and maintenance obligation as required by the contract.				
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 PMEC Berhampur.				
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				
We Also Compiled the Technical data sheet attached with the authorized signature				
and company seal.				
N/				
Yours faithfully,				
for				

Signature of Officer Authorized to sign this Document on behalf of the OEM.

### Annexure-VI BANK GUARANTEE FOR PERFORMANCE SECURITY

To The Principal, Parala Maharaja Engineering College, Sitalapali, Berhampur, Ganjam-761003 WHEREAS address of the supplier) (herein after called "the supplier") has undertaken, in pursuance of contract no....... dated ...... to supply (description of goods and services) (herein after called "the contract"). AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract: AND WHEREAS we have agreed to give the supplier such a bank guarantee; NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of Rs.....(amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein. We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the contract to be performed thereunder or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid until the ..... day of ......, 20...... (Signature of the authorized officer of the Bank) ..... Name and designation of the officer

Seal, name & address of the Bank and address of the Branch
Page 56 of 63 Seal and Full Signature of the Bidder

#### Annexure - VII

#### **Comprehensive Annual Maintenance Contract Agreement**

THIS AGREEMENT made theday of, 20 between the "The
Principal, Parala Maharaja Engineering College, Berhampur" (hereinafter "the
Purchaser") of the one part and M/s
(hereinafter called "the Supplier") of the other part:
WHEREAS the Purchaser invited bids for certain Goods & ancillary services viz, Supply,
Installation, Testing and Commissioning of IP-based CCTV Surveillance System for
Classrooms and College Campus at PMEC Berhampur including Comprehensive Annual
Maintenance Services and has accepted a bid by the Supplier for the instruments &
equipment specified below at the Consignee site including Comprehensive Warranty
Maintenance Services for a period of 4 Years after one year of standard warranty period from
the date of installation & commissioning of the instruments & equipment as per award of
Contract No dated

#### NOW THIS AGREEMENT WITNESS AS FOLLOWS:

- 1. Maintenance Services shall consist of Preventive and Corrective maintenance of equipment specified above & will include repair and replacement of parts free of cost.
- 2. Preventive maintenance, monthly once, which includes:
  - 2.1 Check-up to ensure that device connection is proper, cabling is at proper condition etc.
  - 2.2 Cleaning of the above instruments & equipments and checking the System Performance.
- 3. The Supplier is to furnish the tentative schedule of the preventive maintenance of Warranty Maintenance Contract (WMC) to be carried out.
- 4 The parts replaced must be new parts or equivalent in performance to new parts.
- 5. The Supplier will also provide the same maintenance service in case of the movement of equipment from the place of original installation to a different place or location, if the equipment is shifted by the Purchaser to another place or location at the cost and risk of the purchaser.
- 6. Any complaint informed through telephone must be acknowledged with a Complaint No. by the Supplier which will be noted by Consignee. All further contact with the Supplier on such complaint will be initiated through that Complaint No. Once rectification done, that No.

will be cancelled by both parties. A register is to be maintained by the Supplier where complaints are to be noted along with Complaint No.

- 7. The maintenance shall normally be done during working hours of the customer.
- 8. The Service Engineer of the Supplier will be allowed to handle the respective plant & machineries only in presence of the officer in charge at the Consignee site.
- 9. The Supplier should ensure that maintenance job is not hampered/delayed due to paucity of spares/inadequate manpower etc.
- 10. The Supplier should submit the services call report, to the Consignee for each and every service call without fail.
- 11. In case of delay/lack of communication, down time will be calculated as mentioned below in WMC Clause.

#### **Comprehensive Warranty Maintenance Contract Clause**

Normal response time for repair is 24 hours from the actual time of reporting of the problem to the supplier.

	Period	Extension of CAMC period
Response Time	Above 24 hrs & below 48 hrs	2 days for each day of delay
	Above 48 hrs & below 96 hrs	1 week for each day of delay
	Above 96 hrs	2 weeks for each day of delay
Down Time	Above 24 hrs & below 48 hrs	2 days for each day of delay
	Above 48 hrs & below 96 hrs	1 week for each day of delay
	Above 96 hrs	2 weeks for each day of delay

- 12. The Supplier evaluation data format for the CAMC of Consignee systems may be filled up for necessary action.
- 13. All formats after filled up should be signed at the end of each page by the Supplier.
- 14. After completion of the work/repair/maintenance, the Purchaser shall issue a certificate of completion to the supplier to that effect.

Signature Signature

For the Purchaser For the Supplier

Name: Name:

Designation:
Address:
Designation:
Address:

Telephone No: Telephone No:

# PART II (PRICE BID)

#### Annexure-VIII (A)

#### (On the letterhead of the Firm)

#### Financial Bid/Price Bid Undertaking

_	$\alpha$ .
Dear	V11
Dear	L)II

- 2. I/we thoroughly examined and understood instructions to tenders, the scope of work, and terms & conditions given in the tender document and agree to abide by them.
- 3. I/We hereby offer to execute the jobs at the following rates.
- 4. I/We, undertake that I/we are not entitled to claim any enhancement of rates on any account during the tenure of the completion of the work.

Sl No	ITEM	QUAN TITY	UOM	UNIT PRICE in Rs.	AMOUNT in Rs.	Taxes in Rs.	Total Amount including Tax in Rs.
A	IP Camera						
1	SITC of 4.0 MP IP Camera - Bullet IR 30 Mtrs (Indoor)	134	No's				
2	SITC of 4.0 MP IP Camera - Dome IR 30 Mtrs (Indoor)	193	No's				
3	SITC of 2.0 MP IP Camera - PTZ IR 300 Mtr	4	No's				
В	Active Components Horizontal C	onnecti	vity:				
1	SITC of 24 Port GIGA POE Managed L2 Switch with Copper with 2 SFP UPLINK Port	18	No's				
2	SITC of 28 Port GIGA Non-POE Managed L3 Switch with Copper with SFP UPLINK Port	1					
3	SITC of SFP Modules (SM, LC, 1G, GIGA)	28	No's				
C	Racking System:						
1	SITC of 9U Rack, 550w×500d IP55 grade outdoor rack with 2 FAN, 1 cable manager, 1 PDU (5Amp), mounting hardware (pack of 10)	1	No's				
2	SITC of 27U, 600w x 800d floor standing rack with 2 FAN, 1 cable manager, 1 PDU (5Amp), mounting hard (pack of 10)	1	No's				
D	Copper Components for Horizontal :						
1	SITC of Cat6 indoor UTP Cable (Box of 305 Mtrs) for Horizontal Cabling	66	Box				
2	SITC of Cat6 outdoor UTP Cable (Box of 305 Mtrs) for Horizontal Cabling	4	Box				

3	SITC of Cat6 I/O, Single Face Plate, keystone with SMB	331	No's			
4	SITC of 1U, 19", Cat6, 24 Port Loaded Jackpanel	27	No's			
5	SITC of Cat6 Patch Cord - 1 Mtr - Rack end _ GREY	662	No's			
E	<b>Monitoring Station Equipment:</b>					
1	SITC of 55" SMART TV Display	2	No's			
2	SITC of 128 Channel NVR with 8 SATA Slot	3	No's			
3	SITC of 10 TB HDD	24	No's			
4	SITC of Connectivity Cables HDMI 5 Mtrs	3	No's			
F	Civil Items & Accessories					
1	SITC of 25mm PVC pipe with accessories	8275	Mtrs			
2	SITC of 25mm PVC Flexible Pipe	1655	Mtrs			
G	Other & Fabricated Items					
1	SITC of CCTV Camera Mounting Box	331	No's			
2	SITC of CCTV Camera Mounting Pole as per given specifications	4	No's			
3	SITC of CCTV Camera Mounting Pole Foundation as per given specifications	4	No's			
H	Online UPS					
1	SITC of 10 KVA Online UPS	1	No's			
2	SITC of Battery (65 AH)	20	No's			
Total quoted amount						

Note: The quantities mentioned against each item are indicative only and subjected to change; however the above mentioned quantities shall be used for financial evaluation.

#### Name & Sign of Bidder along with address:

#### Note:

1. Above rates shall include GST, all applicable taxes, fees, duties, levies, transportation charges, insurance charges, installation charges, material charges, labour charges and all other charges required for the successful completion of work.

2. Price Bid shall not contain any condition whatsoever and any conditional bids shall be rejected.

Place:	
Date:	

Signature of Bidder Business Address Seal of the Bidder

# Annexure-VIII (B) Price Schedule for Comprehensive Annual Maintenance Contract after Completion of Warranty Period.

Years	2nd Year	3rd Year	4th Year	5th Year	Total Amount
Amount					
(Rs)					
Amount					
including					
Tax (Rs)					

#### Note:-

- 1. Prices shall be quoted inclusive of all taxes, duties, freight, forwarding, and cost of labor for installation. In case of discrepancy between unit price and total prices, the lowest price shall prevail.
- 2. The cost of CAMC which includes preventive maintenance including testing & calibration as per technical/ service/ operational manual, labour and spares, after satisfactory completion of Standard warranty period may be quoted for next 4 years on yearly basis.
- 3. The payment of CAMC will be made as per payment terms of the bid document.
- 4. The uptime warranty and down time penalty shall be as per the bid document.
- 5. All software update should be provided free of cost during CAMC period.
- 6. The stipulations in Technical Specification will supersede above provisions.
- 7. The supplier shall keep sufficient stock of spares required during Annual comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Place:	
Date:	
	Signature of Bidder
	Seal of the Bidder

#### **Annexure-IX**

## (Odisha Procurement Preference Policy for Micro and Small Manufacturing Enterprises'2023 [See para I (B)])

Enterprises 2025 [See para I (D)])	
BIDDER'S AFFII	DAVIT
(Applicable to Bidders who fall under the defi	nition of Odisha Small Manufacturing
Enterprises)	
I, Shri/ Smt/ Ms (Designation)	of (name of the Bidder
Enterprise) solemnly state the follow	ing.
1. That annual turnover of my enterprise is less than	a Rs. 50 cr.
2. That my enterprise has a valid Udyam Registra	ation bearing No within
the jurisdiction of the State of Odisha	
3. That manufacturing plant/unit of my en	nterprise is located in Odisha in
Village/Town/City, Block/ULB.	, Dist
4. That the goods for which I am submitting the	nis bid are manufactured in the above-
mentioned manufacturing plant/unit of my enterp	orise.
5. That the goods to be supplied by my enterprise s	hall be its own manufactured goods.
6. That my enterprise shall not supply goods which	are not manufactured by my enterprise.
7. That my enterprise has not been blacklisted/de	barred by any Government organization
from participating in the current procurement pro	ocess.
8. That my enterprise comes under the definition o	f Odisha Small Manufacturing Enterprise
(OSME), as defined in the policy, and is,	therefore, eligible for preferences and
relaxations provided in the policy for OSMEs.	
9. That I am submitting this affidavit in resp	onse to the tender Nodated
invited by (Organization Name)	for supply of (item name)
I certify that all information furnished by me	as above are true and correct. If any
information is found to be incorrect, I and my en	terprise shall be liable for any punitive
action as deemed appropriate by competent authority	<i>y</i> .
Date	
	Signature of Bidder
	Name of the Bidder
	Address
	Mob No.
	E-mail: