

NOTICE INVITING e-TENDERS

The Executive Engineer (E), BBSR, Central Public Works Department, Plot No. 188/623, 624, Pokhariput, Bhubaneswar (Telephone No. 0674-2352973/983) invites on behalf of President of India online percentage rate e-tender in **Two bids system (Part-I P.Q Bid, Part-II Price Bid)** from **“(I) Manufacturer/OEM & (II) Specialized firms having requisite eligibility criteria and (III) CPWD Building & Roads Category Contractors”** for the following work(s):

NIT NO. **15/EE-E/BBSR/CPWD/2026-27**

Name of Work: **Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.**

Estimated Cost: **Rs.30,53,118/-**

Earnest Money: **Rs.61,062/-**

E-Tender Processing Fee: **N/A**

Period of Completion: **03 Months**

Last time and date of submission of bid: **29.05.2026, 15:00 PM**

The Pre-Bid Conference shall be held in the office of the Executive Engineer (E), BBSR, CPWD, Nirman Bhawan, Pokhariput, Bhubaneswar-751020 on date **28.05.2026 at 15:30 PM to** clear the Technical doubts if any of intending Bidders

The tender forms and other details can be obtained from the website www.etender.cpwd.gov.in or www.cpwd.gov.in. All corrigendum / addendum shall only be available on this website and shall not be published anywhere else.

AE-(E) (P)
BBSR

AAO
BBSR

EE (E)
BBSR

NOTICE INVITING TENDER**NIT No.: 15/EE-E/BBSR/CPWD/2026-27**

Name of work : Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.

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Certified that this N.I.T. amounting to Rs.30,53,118/- contains 48 pages only in chronological order

AE-(E) (P)
BBSR

AAO
BBSR

EE (E)
BBSR

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING

The Executive Engineer (E), BBSR, CPWD, Nirman Bhawan, Plot No. 188/623-624, Pokhariput, Bhubaneswar - 751020 (Telephone No. 0674-2352973/983, email id: executiveengineerelectbbsr@gmail.com) on behalf of President of India invites online percentage rate bids on **Two bids system (Part-I P.Q Bid, Part-II Price Bid)** "(I) Manufacturer/OEM & (II) Specialized firms having requisite eligibility criteria and (III) CPWD Building & Roads Category Contractors" for the following work(s):

NIT No.	15/EE-E/BBSR/CPWD/2026-27
Name of Work & location	Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.
Estimated cost put to tender	Rs.30,53,118/-
Earnest Money	Rs.61,062/-
Period of Completion	03 Months
Last date & time of submission of Bid, original EMD copy of receipt for deposition of original EMD, and other document as specified in the press notice.	29.05.2026, 15:00 PM
Date of Opening of Pre-Qualification Bid	29.05.2026, 15:30 PM
Time and date of opening of price bid.	To be intimated later

The Pre-Bid Conference shall be held in the office of the Executive Engineer (E), BBSR, CPWD, Nirman Bhawan, Pokhariput, Bhubaneswar-751020 on date **28.05.2026 at 15:30 PM** to clear the Technical doubts if any of intending Bidders

S.N	Components of E&M works	Estimated cost in lacs	Minimum eligibility Criteria
1	CCTV System	30.53 Lacs	The contractor shall have to associate with agency fulfilling the following eligibility criteria (if he himself does not full fill the eligibility criteria) having successfully completed during last seven years ending up to previous day of last date of submission of tender as given below with completion certificate issued by an officer not below the rank of Executive Engineer or equivalent duly attested. Three similar completed works each of value not less than Rs. 12.21 Lakhs which is 40% of estimate cost OR Two similar completed works each of value not less than Rs. 18.31 Lakhs which is 60% of estimate cost OR One similar completed work of value not less than Rs. 24.42 Lakhs which is 80% of estimate cost Similar work shall mean "SITC of CCTV system ." However, the Composite category contractor shall also be eligible to carry out himself without associating any specialized agency provided: (a) He full fills the prescribed eligibility criteria respectively for this work OR (b) He directly procures the equipment of approved make from manufacturer and gets it installed from authorized agency/service Provider of the manufacturer/specialized agency, all as per the eligibility criteria mentioned as above.

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and instructions for bidders posted on website shall form part of bid document.
3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.etender.cpwd.gov.in or www.cpwd.gov.in free of cost.
4. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Demand Draft or Pay Order or Banker's Cheque or Deposit at call receipt or fixed deposit receipts and Bank Guarantee of any Scheduled Bank towards EMD in favour of **Executive Engineer (E), BCED, CPWD, Bhubaneswar**, receipt for deposition of original EMD to division office of any Executive Engineer (Including NIT issuing EE/AE), CPWD and other documents as specified.

5. Those contractor not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imported training on online bidding process as per details available on the website.
6. The intending bidder must have valid class-III digital signature to submit the bid.
7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
8. SC/ST contractor enlisted under Class-V category are exempted from processing fee payable to ITI Limited.
9. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
10. The bidder shall be required to execute the work on top priority and to arrange the resources of men and materials accordingly as directed by Engineer-in-Charge
11. If the cell is left blank and no percentage rate (above or below) is quoted by the bidder, rate shall be treated as "0" (ZERO).
12. The tenderer should also read the General Conditions of Contract for **CPWD Works 2023 (Construction work)** amended up to date (available on CPWD above websites), which is available as Govt. of India Publications.
13. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
14. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/ taking up of works in CPWD. The Department reserves the right to verify the particulars furnished by the applicant independently.
15. If the bidder has not possessed valid electrical license of appropriate voltage to execute electrical work, then in such a case the bidder shall scan and upload following under taking along with other bid documents.

"If work is awarded to me, I/we shall either obtain valid electrical license at the time of execution of electrical work or associates with contractor for execution of the above said work possessing Valid Electrical License of appropriate voltage issued by competent authority".

List of Documents to be filled in by the bidders in various forms to be scanned and uploaded in JPG/PDF format within the period of bid submission

SI No	(I) Manufacturer/OEM of Solar Power Generation & (II) Specialized firms	(III) CPWD Building & Roads Category Contractors
1	<u>For Specialized firms</u> -Authorization letter from OEM required.	Enlistment Order of the Contractor
2	Certificate of Registration for GST	Certificate of Registration for GST
3	PAN No. (Permanent Account Number)	PAN No. (Permanent Account Number)
4	Earnest Money Deposit Receipt for B along with scan copy of Original EMD	Earnest Money Deposit Receipt for B along with scan copy of Original EMD
5	Confirmation for Submission of Financial Bid Form C	Confirmation for Submission of Financial Bid Form C
6	An Undertaking Form D (Undertaking regarding not debarred by Govt./ Autonomous body etc)	An Undertaking Form D (Undertaking regarding not debarred by Govt./ Autonomous body etc)
7	Non-CPWD Contractors who have not taken the ERP training shall scan and upload the following undertaking: "If work is awarded to me, I/we myself or my authorized representative shall take compulsory ERP training through any of the CPWD Regional Training Institutes (RTIs) at Delhi, Mumbai, Chennai, Kolkata, National CPWD Academy Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" Conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD and get the ERP training certificate issued through LMS of ERP within 2 months from the date of issue of intent letter. Failing which I/we shall be responsible for the recovery of Rs. 10,000/- per week from R/A bills."	ERP Training Certificate issued through LMS (Learning Management System) in ERP to the Contractor. The enlisted contractor will not be allowed to participate in tendering process without uploading the certificate of above training.
8	Completion Certificate of Similar nature of work	Completion Certificate of Similar nature of work or Undertaking mentioned above in table page No – 4, Point No (b).
9		Valid Electrical License of appropriate voltage to execute electrical work as given in schedule of work or Undertaking as per Para-15 above

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

CPWD-6 for E-Tendering

Percentage Rate bids on **Two bids system (Part-I P.Q Bid, Part-II Price Bid)** from “**(I) Manufacturer/OEM & (II) Specialized firms having requisite eligibility criteria and (III) CPWD Building & Roads Category Contractors**” for the work: **Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.**

The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1. The work is estimated to cost **Rs.30,53,118/-**. The estimate however is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidder on prescribed Form No. CPWD 7/8 (Or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out of the work will be **03 Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.

The site for the work is available.

4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website www.etender.cpwd.gov.in or www.cpwd.gov.in free of cost.
5. After submission of the bid the contractor can re-submit revised.
6. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

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

7. Earnest money in the form of Treasury Challan or Demand Draft or Pay Order or Banker's Cheque or Deposit at Call Receipt of Fixed Deposit Receipt (**Drawn in favour of Executive Engineer (E), BCED, CPWD, Bhubaneswar**) Shall be scanned and uploaded to the e-tendering website within the period of bid-submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE / AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by the tender inviting EE in the NIT.

This receipt shall also be uploaded to the e-tendering website by the intending bidder upto the specified bid submission date and time.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money of Rs. 20 Lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Online bid documents submitted by intending bidders shall be opened only of those bidders, **whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.**

The P.Q bid submitted shall be opened at **15:30 PM on 29.05.2026**

8. The bid submitted shall become invalid
 - i. The bidder is found ineligible.
 - ii. The bidder does not deposit original EMD with division office of any Executive Engineer, CPWD.
 - iii. The bidder does not upload GST Registration certificate.
 - iv. The bidder does not upload Valid Electrical License of appropriate voltage to execute electrical work. However the contractor shall be allowed to participate in tender with an undertaking that "They will either obtain valid electrical license of appropriate voltage at the time of execution of electrical work or associates contractor having valid electrical license of appropriate voltage of eligible class/similar work experience"
 - v. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - vi. If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above / below on the total amount of the tender in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
9. **The contractor whose bid is accepted, will be required to furnish (a) Performance Guarantee of 5% (Five Percent) of the Tendered value or Estimated Cost put to Tender(ECPT) (whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the ECPT , the PG , in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tender amount within the period specified in schedule F (GCC 2023 Construction work amended vide No-DG/CON/Construction 2023/20 Dt.27.02.2026).** This guarantee shall be in the form of cash (in case guarantee amount is less than s 10,000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than s 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The Earnest Money deposited along with tender shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board and Programme Chart (Time and Progress) within **07 Days** from the date of issue of letter of acceptance as specified in Schedule F.
10. Intending bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (So far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rated at which

stores, tools and plant etc. will be issued to him by the Government and local conditions and other factory having a bearing on the execution of the work.

11. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
12. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
13. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
14. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture / Nursery Category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an office in any capacity between the grades of Superintending Engineer and Junior Engineer (Both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazette officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
15. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a Contractor for a period of One year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
16. The bid for the work shall remain open for acceptance for a period of **Thirty (30) days** from the date of opening of bids in case of single bid system- if any bidder withdraws his bid before the said period or issued of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
17. The notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the accepting authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of: -
 - a. The notice inviting bid, all the documents including additional conditions, specifications, and drawings, if any, forming part of the bid as uploaded at the time of incitation of bid and the rated quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b. Standard C.P.W.D Form 7/8 or other Standard C.P.W.D Form as applicable.
18. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the retendering process of the work.
19. The Contractor/Agency shall not execute any Extra/Substitute and deviated item as specified in BOQ without prior approval of Engineer-in-charge.
20. Water and electricity to be used in the work will be in the scope of agency. No extra payment will be done for it.

21. Contractor shall submit the drawing before execution of work (location of CCTV) to the respective Engineer in charge for approval without any cost/claims.
22. Small civil work e.g core cutting or making any hole or after installation of items making it good again will be in the scope of agency without any cost/claims.
23. The bidder must bid the price for equipment including the price of foundation if required without any cost/claims.
24. The intending bidders are required to update their profile in CPWD e-tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile / uploading tender can be resolved through the concerned Executive Engineer (E) or ERP help line no. 18001803286 or email ID: cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issue till the last date of submission of bid in their own interest.

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

Form "B"**EMD Receipt format**

Receipt of deposition of original EMD

(Receipt No...../date.....)

Name of work: **Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.**

1. NIT No: **15/EE-E/BBSR/CPWD/2026-27**
2. Estimated Cost: **Rs.30,53,118/-**
3. Amount of Earnest Money Deposit: **Rs.61,062/-**
4. Last date of submission of bid: **29.05.2026 15:00 PM**

(*To be filled by NIT approving authority/EE at the time of issue of NIT and uploaded along with NIT)

Name of Contractor:.....#

1. Form of EMD:.....#
2. Amount of Earnest Money Deposit:.....#
3. Date of submission of EMD:.....#

Signature, Name and Designation of EMD
Receiving officer (EE/AE(P)/AE/AAO)
alongwith office stamp

(# to be filled by EMD receiving EE)

CONFIRMATION FOR SUBMISSION OF FINANCIAL BID

To
The Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

Sub:-

Sir,

I/We the Bidder have uploaded financial bid from our firm for above work.

Yours faithfully

Signature

Full Name of the Firm/Bidder:.....

Designation:.....

Address:.....

Tele No.s (O)..... (R).....

E mail:.....

Fax No:.....

Form – “D”

UNDERTAKING

I/we declare that, I/we have not been debarred/restrained/ black listed by any Central Govt. / State Govt. Agency/ Autonomous body of the Central or State Govt. / PSU etc.

Signature of the Bidder

Address

Form "E"**AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)**(to be submitted for each and every E&M component)

1. M/s. (Name of the firm with full address)
2. Enlistment Status
Valid Upto:
(Henceforth called the main Contractor)
3. M/s. (Name of the firm with full address)
4. Enlistment Status
Valid Upto:
(Henceforth called Associated Contractor)

For the execution of E & M Component Works –

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CPWD) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Chief Engineer, CPWD, Bhubaneswar. His decisions shall be final and binding on both of us. We have agreed as under:

1. The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.
2. The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
3. All the machinery and equipments, tools and tackles required for execution of the E & M works, as per agreement, shall be the responsibility of the Associated Contractor.
4. The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.
5. Site order book maintained for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and by Associated Contractor himself.
6. All the correspondence regarding execution of the E & M work shall be done by the department with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

SIGNATURE OF MAIN CONTRACTOR	SIGNATURE OF ASSOCIATED CONTRACTOR
Date:	Date:
Place:	Place:
1. Witness with address	2. Witness with address
(From major component contractor side)	(From minor component contractor side)

CPWD-7

CPWD

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT**

Percentage Rate Tender and contract for works

Tender for the work of: Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.

To be uploaded by **15:00 PM** on **29.05.2026** at www.etender.cpwd.gov.in

To be opened in presence of tenderers who may be present at **15:30 PM** on **29.05.2026** in the office of **Executive Engineer (E), BBSR, CPWD, Bhubaneswar**

Issued to*

Signature of officer issuing the documents*

Designation*

Date of Issue.....*

TENDER

I/We have read and examined the notice inviting tender, schedule, A,B,C,D & E Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, of 2023 with up to date amendments clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract of 2020 with up to date amendments and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Thirty (30) Days** from the date of opening of bids in case of single bid system and not to make any modification in its terms and conditions

(a) Performance Guarantee of 5% (Five Percent) of the Tendered value or Estimated Cost put to Tender(ECPT) (whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the ECPT , the PG , in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tender amount within the period specified in schedule F(GCC 2023 Construction work amended vide No-DG/CON/Construction 2023/20 Dt.27.02.2026) is here by forwarded in cash / receipt treasury challan / deposit at call receipt of a scheduled bank / fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / bank guarantee issued by a scheduled bank as performance guarantee. If I/We, fail to furnish the prescribed performance guarantee with in prescribed period. I/We agree that the said President of India or his successors, in offices hall without prejudice to any other right or remedy, be at liberty to forfeit the said performance guarantee absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, beat liberty to forfeit the said performance guarantee absolutely. The said performance guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause12.2 and 12.3 of the tender form. Further, I/We agree that in case off or feature of Performance Guarantee as aforesaid. I/We shall be debarred for participation in there-tendering process of the work.

CPWD-7**CPWD**

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

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

Dated:**.....

Signature of Contractor **

Witness: **

Address: **

Postal Address **

Occupation: **

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of the President of India for a sum of s.....*..... (Rupee.....*.....).

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

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

For & on behalf of President of India

Signature.....*.....

Dated:*.....

Designation

*** Blanks to be filled by EE/BBSR**

**** To be filled by Contractor**

PROFORMA OF SCHEDULES**CPWD****SCHEDULE 'A'**

Schedule of quantities

Page No-

SCHEDULE 'D' Extra schedule for specific requirements/ document for the work, if any.	Not Applicable
SCHEDULE 'E' Reference to General Conditions of Contract	General Conditions of Contract-2023 Construction Work modified and amended upto the last date of received of tender.
Name of Work	Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.
Estimated cost of work	Rs.30,53,118/-
Earnest money	Rs.61,062/- (to be returned after receiving Performance Guarantee) (EMD shall be made / issued only from the account of the bidder / tenderer submitting the bid/tender. EMD made/ issued from the account other than that of the bidder/ tenderer submitting the bid shall not be accepted. (CPWD Works Manual-2024 amended vide No-DG/SOP 2024/22 Dt.23.03.2026).
Performance guarantee	(a) Performance Guarantee of 5% (Five Percent) of the Tendered value or Estimated Cost put to Tender (ECPT) (whichever is higher) (b) Where the tendered amount is less than eighty percent (80%) of the ECPT, the PG, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tender amount. (GCC 2023 Construction work amended vide No-DG/CON/Construction 2023/20 Dt.27.02.2026).
Security deposit	2.5% of Tendered Value
SCHEDULE 'F'	
GENERAL RULES & DIRECTIONS: Officer inviting tender	Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	See below under Clause 12
Definitions:	
Engineer-in-Charge	Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.
Accepting Authority	Chief Engineer, CPWD, Bhubaneswar or successor thereof.
Percentage on cost of materials and labour to cover all overheads and profits:	15%
Standard Schedule of Rates	1. DSR-2025 (E&M) plus cost index with correction slip(s) issued upto the last date of submission of Bid. 2. Market Rates for Non DSR Items.
Department	Central Public Works Department.

Standard CPWD Contract Form		General Conditions of Contract-2023 Construction Work, CPWD Form 7 as amended up to last date of submission of bid.	
Clause 1			
(i)Time allowed for submission of Performance Guarantee, Programme chart (time and progress) and applicable labour licenses, registration with EPFO, ESIC, action Plan for Green Rating Certification, BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.		07 days	
(ii) Maximum allowable extension with late fee at 0.1% per day of performance guarantee amount beyond the period provided in (i) above		03 days with late fee @ 0.1% per day of the PG amount (Non-refundable)	
Clause 2			
Authority for fixing compensation under clause 2		Chief Engineer, CPWD, Bhubaneswar or successor thereof.	
Clause 2A			
Whether Clause 2A shall be applicable		Not Applicable	
Clause 5			
Number of days from the date of issue of letter of acceptance for reckoning date of start		10 days	
Table of Milestones			
No.	Description	Period of completion	Amount to be withheld in case of non achievement of milestone. (% of tender amount)
1	Submission of drawing/Technical details of major equipment's, Submission of makes as per NIT for approval and place of order for all major materials after approval.	15 Days	1.00%
2	Supply of Materials.	45 Days	1.00%
3	Installation, testing, commissioning of all works.	60 Days	1.50%
4	Completion of all works.	90 Days	1.50%
		Total	5%
Time allowed for execution of work:		03 Months	
Authority to decide:			
(i) Extension of time		Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.	
(ii) Rescheduling of milestones		Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.	
(iii) Shifting of date of start in case of delay in handing over of site		Executive Engineer (E), CPWD, Bhubaneswar (Odisha) or successor thereof.	

Clause 5 Schedule of handing over of site			
Part	Portion of site	Description	Time Period for handing over reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance	*	
Part B	Portions with encumbrances	*	
Part C	Portions dependent on work of other agencies	*	
Clause 5 Schedule of issue of designs			
Part	Portion of site	Description	Time Period for handing over reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance	*	
Part B	Portions with encumbrances	*	
Part C	Portions dependent on work of other agencies	*	
Clause 6		EMB	
* To be filled by EE(E), CPWD, Bhubaneswar			
Clause 7			
Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment		10% of Tender Amount or part thereof as decided by Engineer-in-Charge.	
Clause 7A No Running Account Bill shall be paid for the work till the applicable labour licenses, Registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge. Whether Clause 7A shall be applicable		Yes Applicable	
Clause 10A List of testing equipments to be provided by the contractor at site		Megger, EARTH TESTER, Multimeter, Tong Tester	
Clause 10 B (ii) Whether clauses 10 B (ii) shall be applicable		Not Applicable	
Clause 10C (Applicable in only those contracts where clause 10CC is not applicable) Components of labour expressed as percent of value of work :		25%	
Clause 10CA		Deleted	
Clause 10CC Clauses 10 CC to be applicable in contracts with stipulated period of completion exceeding the period of 12 Months.		12 (Twelve) Months	
Clause 11 Specifications to be followed for execution of work		1. CPWD General Specification for electrical Works with correction slips issued upto last day of receipt of Bids. a) Part-I Internal – 2023 b) Part-II External – 2023	
Clause 12		As per OM No.DG/CON/312 dt 17.02.2021.	
Type of work		Construction Work	
12.2. & 12.3 Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work. (a) For all items of the work		100%	

Clause 16 Competent authority for deciding reduced rates.				Chief Engineer, CPWD, Bhubaneswar or successor thereof.		
Clause 17 Defects liability period shall be 12 Months after date of completion of work issued by the competent authority.				EE (E),CPWD,Bhubaneswar		
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site				As required for timely execution of work as per direction of Engineer –in – charge		
Clause 19				As per OM No.DG/CON/314 dt 24.02.2021.		
Clause 19 C				Engineer -in- Charge		
Clause 19 D				Engineer -in- Charge		
Clause 19 G				Engineer -in- Charge		
Clause 19 K				Engineer -in- Charge		
Clause 25 As per OM No.DG/CON/317 dt:28.06.2021. and OM No.DG/CON/318 dt:17.08.2021.						
(i) Conciliator				SDG (Kolkata), CPWD, Kolkata		
(ii) Arbitrator Appointing Authority				Chief Engineer, CPWD, Bhubaneswar.		
(iii) Place of Arbitration				To decided by Arbitrator in consultation with both the parties.		
Clause 32						
Requirement of technical representative(s) and recovery rate (Electrical)						
Sl. No.	Minimum Qualification of Technical Representative	Designation of Technical Staff	Minimum experience (Years)	Number (of major + minor component)	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32	
					Figures	Words
1	Graduate Engineer or Diploma Engineer	Project Manager cum planning/ quality/Site/billing Engineer	2 Years or 5 Years Respectively	1 of major component	Rs.15000/- per month	Rs. Fifteen Thousand only per month

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

Diploma holder with minimum 10 years relevant experience with a reputed construction company can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

INTEGRITY PACT

To,
All Bidders,

Sub: NIT No. **15/EE-E/BBSR/CPWD/2026-27** for the work **Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.**

Dear Sir,

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

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

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

Yours faithfully

Executive Engineer (Elect)
BBSR, CPWD, Bhubaneswar-20

INTEGRITY PACT

To,
The Executive Engineer (E),
BBSR, CPWD, Bhubaneswar.

Sub: Submission of Tender for the work of **Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.**

Dear Sir,

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

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

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

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

Yours faithfully

(Duly authorized signatory of the Bidder)

**To be signed by the bidder and same signatory competent / authorized to
Sign the relevant contract on behalf of CPWD.**

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of20.....

BETWEEN

President of India represented through **Executive Engineer, BBSR, CPWD, NirmanBhawan, Plot No.188/623-624, Pokhariput, Bhubaneswar-751020** (Hereinafter referred as the '**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

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

through(Hereinafter referred to as the

(Details of duly authorized signatory)

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

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No. **15/EE-E/BBSR/CPWD/2026-27**) (hereinafter referred to as **"Tender/Bid"**) and intends to award, under laid down organizational procedure, contract for

.....
(Name of work)

Hereinafter referred to as the **"Contract"**.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

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

Article 1: Commitment of the Principal/Owner

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

- a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

- a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
- b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent /parallel tender for the same item.
- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

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

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

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

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

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

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

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

Article 7- Other Provisions

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

Article 8- LEGAL AND PRIOR RIGHTS

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

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

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

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

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

CCTV System

1.0 Scope of Work

The scope of work under this tender shall include planning, designing, supplying, installation, laying of cables, testing, commissioning, and handing over of a complete IP-based CCTV Video Surveillance System.

The work shall include providing all necessary hardware, software, accessories, and allied works required for satisfactory operation of the system. The contractor shall carry out the complete installation including recessed/surface wiring using suitable heavy-duty MS/PVC conduit and CAT-6/CAT-6A cabling.

The system shall consist of Dome, Bullet, PTZ Dome, and Panoramic IP Cameras with vandal-resistant housing, night vision capability, Full HD image quality, and integrated intelligent features such as microphone, speaker, motion sensor, light sensor, analytics, etc., suitable for commercial and institutional premises including offices, corridors, galleries, entrances, display areas, and other sensitive locations.

The scope shall broadly include the following:

1. IP CCTV cameras for indoor and outdoor applications complete with mounting accessories and housings.
2. Network Video Recorder (NVR) with required storage capacity.
3. LED monitors/display units.
4. Video Management System (VMS).
5. Network switches including PoE/non-PoE managed switches.
6. Patch panels, LIU, racks, power supply units, and associated accessories.
7. CAT-6/CAT-6A cabling including termination and testing.
8. All interface devices, alarm integration, GUI configuration, software licensing, and networking components required for a fully functional system.
9. Testing, commissioning, training, and documentation.

2.0 Main Features of CCTV System

2.1 Video Resolution

The cameras shall support Full HD resolution or higher and shall support H.264/H.265 compression standards with frame rates of 25/30/60 fps as applicable.

2.2 Wide Viewing Angle

The camera lens shall provide a wide horizontal viewing angle up to 120° suitable for covering entrances, corridors, display cases, passages, and open areas. The exact lens requirement shall be finalized based on site conditions.

2.3 PIR Sensor

The cameras shall preferably be equipped with Passive Infrared (PIR) sensors capable of detecting movement in darkness by sensing body temperature variations. The PIR functionality shall support triggering of:

- White LED illumination,
- Video recording,

- Audio alerts through built-in speaker,
- Email notifications,
- Other programmable actions.

2.4 Picture Modes

The camera shall support selectable picture modes including:

- Standard,
- Situation Priority – Moving Object,
- Situation Priority – Low Noise,
- Flickerless mode for 50Hz/60Hz environments.

2.5 Signal Processing

The cameras shall incorporate advanced signal processing and intelligent video analytics for enhanced image quality and surveillance functionality.

2.6 CMOS Sensor

The cameras shall use high-quality CMOS image sensors capable of delivering low-noise, high-resolution images with high-speed readout capability.

2.7 Wide Dynamic Range (WDR)

The cameras shall support Wide Dynamic Range/Visibility Enhancer technology to optimize brightness and color reproduction dynamically for both backlit and low-light scenes.

2.8 Noise Reduction

The system shall support Dynamic Noise Reduction (DNR) and Automatic Gain Control (AGC) to provide clear images with reduced noise and motion blur.

2.9 Intelligent Motion Detection

The cameras shall support intelligent motion detection capable of minimizing false alarms caused by environmental disturbances such as moving trees, water ripples, reflections, etc.

2.10 Intelligent Video Analytics

The system shall preferably support advanced analytics architecture compatible with third-party software platforms and standalone surveillance functionality.

2.11 ONVIF Compliance

All IP cameras shall comply with ONVIF Profile-S standards for interoperability.

3.00 32/64 Channel, NVR

Sr. No	Description	Compliance
1	The Video Management System (VMS) shall be a Microsoft Windows-based video management and surveillance system consisting of two primary components, as follows:	
2	An IP video management system. This application shall:	
a	Maintain the database of cameras and recording devices and to provide a web-based administrative portal to manage the video surveillance system	
b	route video traffic to users as requested and appropriate	
c	record and store video from resources on the network	
3	The IP video management system shall record video and audio streams from IP cameras and video encoders on the network	
4	Video: H.264 in High, Main, or Base Profile streams from both standard resolution and megapixel cameras	
5	The system shall support recording schedules, including the ability to record based on motion, analytic, and alarm events	
6	The IP video management system shall be capable of continuous scheduled alarm/event and motion recording. Pre-and post- alarm recording shall also be available and shall be fully programmable on a per channel basis.	
7	The IP video management system shall have the ability to record and playback audio streams along with associated video.	
8	The IP Video Management System shall support recording of primary or secondary streams.	
9	The IP Video Management System shall support video bookmarking, such that users can identify and recall important moments in recorded video	
10	The IP video management system shall allow the administrator to set minimum and maximum retention periods for recorded video	

11	The IP video management system shall support network health and monitoring utilizing third-party SNMP monitoring tools.	
12	The IP video management system shall indicate system performance and operation status utilizing a variety of reports	
13	The system shall be configurable remotely or over a network.	

4.0 Monitor Features

1. LED monitor shall be provided as per schedule of work.
2. Monitor shall support Full HD resolution or higher.
3. HDMI/VGA input support shall be provided.
4. Suitable wall/table mounting arrangement shall be included.
5. Power cables and interconnection accessories shall be included.

5.0 PoE Switch & Network Accessories

The network infrastructure shall include:

- L2 Managed PoE Switches,
- L2 Managed Non-PoE Switches,
- L3 Managed Switches (where specified),
- LIU,
- Patch Panels,
- CAT-6/CAT-6A cables,
- Equipment Rack.

6.00 Switch Features

1. IEEE 802.3af/at compliant PoE support.
2. VLAN, QoS, IGMP Snooping, STP/RSTP support.
3. SNMP management support.
4. Rack mountable design.
5. Surge and overload protection.
6. Adequate uplink ports including SFP ports where required.

7.0 Cabling & Installation

1. All network cabling shall be CAT-6/CAT-6A FRLS cable.
2. Cabling shall be laid in heavy-duty PVC/MS conduit.
3. Proper tagging, ferruling, dressing, and termination shall be carried out.
4. All accessories required for complete installation shall be included in the scope.
5. Earthing and surge protection for outdoor equipment shall be provided.

8.0 Testing & Commissioning

The contractor shall:

1. Test all cameras, recording systems, switches, and network components.
2. Configure recording schedules, motion detection, analytics, and user permissions.
3. Demonstrate complete functionality to the Engineer-in-Charge.
4. Submit test reports, IP addressing scheme, and as-built drawings.
5. Provide training to authorized personnel.

8.0 Warranty

The complete CCTV surveillance system shall be covered under Defect Liability Period (DLP) for a minimum period of One (01) Year from the date of successful commissioning/completion of the work or as specified in the Schedule of Work/BOQ. During the DLP, the contractor shall be responsible for attending, repairing, replacing, and rectifying all defects, failures, malfunctions, and deficiencies in the system including equipment, accessories, cabling, software, and workmanship at no extra cost to the department. All defective components shall be replaced with new genuine parts of equivalent or higher specifications as approved by the Engineer-in-Charge.

9.00 The equipment/devices supplied at site shall mandatorily comply with STQC IoTSCS PPO certification as per extant govt. order.

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

LIST OF APPROVED MAKES OF MATERIALS

S.No.	Description of item	Acceptable Makes
SH : CCTV		
SI No.	Product	Make
1	Wires (PVC Insulated copper conductor cable FRLS-ISI marked)/Telephone cables/ Submersible cables/ Co-axial/ TV cables	Havells, Finolex, KEI, Gloster, RR Kabel, Polycab.
2	PVC Conduits (ISI marked) (color of conduit : Ivory / Grey)	Precision, AKG, BEC, GM, Norpack, Atul
3	Modular Switches & Sockets, Fan Regulator/RJ45 including modular boxes & plates	Legrand(Myrius),Panasonic (Vision), Crabtree (Athena), Wipro (North west-stylus+, C&S (Elusio), Schneider (Unica Pure)
4	Dome, Bullet Cameras and PTZ CCTV camera (UL Listed)	Honeywell/Sparsh/ CP Plus/Prama/Matrix/ Pelco
5	Network Video Recorder	Honeywell/Sparsh/ CP Plus/Prama/Matrix/ Pelco
6	Display Monitor	Samsung, Sony, LG, Dell, HP.
7	Hard Disk	Seagate,WD,Toshiba,Samsung
8	Network Switches/Active Part	Allied Tellies, Cisco, Netgear, HP
9	LAN cable (Structured cabling) / Patch cord	Panduit, Belden, Schneider, Systimax (COMMScope), Molex, Legrand, DERWISER
10	Network/ Server Racks	Netrack, WQ, Panduit, Rittal, Emerson, Schneider (APC),Valrack(Legrand)
11	GI pipes	TATA, Jindal, Surya, SAIL
12	OFC	Finolex, Belden, Delton, Panduit, Avaya, Legrand, HFCL, Havells, Derwiser
13	Patch Panels	Molex, Panduit, L-Com, Systimax (Commscope), Legrand, Schneider.
14	All other items not covered above	As per approval of the Engineer-in-charge.

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar

NIT NO-15/EE-E/BBSR/CPWD/2026-27

SCHEDULE OF QUANTITY

Name of work :-Supply, Installation, Testing & Commissioning of CCTV system in the Main Building (Old Age Home Block) at IIC Premises, Khudupur, Jatni, Khurda, Odisha.

Sl. No	Description of Items	Qty	Unit	Rate	Amount	Remark
1	Supplying Installation Testing and Commissioning of 4MP IP IR Dome Camera having following specifications and features etc :- 1) Signal System: PAL/NTSC, Signal to Noise Ratio: > 50 dB, Camera should display Camera title, Date & Time in live & recorded video 2) Image Sensor: 1/2.8" or better progressive Scan CMOS to get color image even at night condition (Minimum Illumination: 0.006 Lux@ F1.4, AGC ON, 0 lux with IR or better) True Day & Night High Performance Mechanical IR cut filter with auto switch, Integrated IR Source (Auto, Manual)- Inbuilt IR LED's with effective distance upto 50 meter or better and 30 meter for colour view in night, Imaging: 1/3s to 1/30000s electronic shutter support, Auto Gain Control, White Balance- Auto, Back Light Compensation, Multi zone Privacy Masking, HLC, Digital Watermarking. 3) Compression (Minimum): Video:- H.265 or better, Audio:- G.711U/A, G.711Mu, G.726, AAC, G.723 4) Wide Dynamic Range:- WDR (120dB or more) 5) Digital Noise Reduction:- DNR (3D) On/Off 6) .Video Streaming & Frame Rates :- Triple streaming, configurable Main stream: 4MP (2560×1440)25/30fps, Sub streams minimum: 720P@25/30 fps 7) Image Setting: Rotate Mode, saturation, brightness, contrast, sharpness adjustable through client software or web browser, Edge Analytics: Tripwire, Intrusion, Motion Detection 8) Cyber Security: AES 256-bit Encryption, Configuration encryption, trusted					

	execution, Digest, security logs, account lockout, video encryption, IP/MAC filtering, HTTPS, trusted upgrade 9) Onboard Storage: Camera should support built-in Micro SD/ SDHC/ SDXC Card slot upto 512 GB. It should be supplied with minimum 128GB memory Card. 10) Recording Management: Format SD, overwrite, storage management, video to NAS device, 11) Alarm Trigger : Motion/tampering detection disconnection detection; IP conflict detection; memory card state detection; memory space detection 12) network SFTP, IPv6, IPv4, DNS,RTCP, NTP, RTP, HTTP, HTTPS, SNMP TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, unicast, 13) System Capability: ONVIF, Camera shall support open source VMS 14) Ethernet: 1 RJ 45 10/100 Ethernet port 15) Audio : It should support 1 x Built-In Mic and 1/1 Alarm In/ Out for External Mic. and Speakers as per site requirement. 16) Power Input: The camera should support simultaneous dual power input—12 VDC (via power adapter) and PoE (802.3af)—to ensure continuous operation in the event of a failure in one power source. 17) Power Requirement: 12VDC/24 VDC/PoE (802.3af)/ePoE 18) Housing/ Enclosure:- IP67 weather proof, IK10, Metallic body 19) Operating Condition:- Ambient Temperature:- (-)05°C to 50°C, humidity 95% (max) (non-condensing) 20) Standards: BIS with ER, STQC IoTSCS PPO Certified, CE, FCC and RoHS					
1.1	4MP @ 25/30fps@1440P (2560x1440) Dome Camera with 2.7 to 4 mm ~12 to 13.5mm or better Varifocal Motorized lens.	7	Each	23754.00	166278.00	DSR-25-40.3.2

2	Supplying Installation Testing and Commissioning of 4MP IP IR Outdoor Bullet Camera having following specifications and features etc :- 1) Signal System: PAL/NTSC, Signal to Noise Ratio: > 50 dB, Camera should display Camera title, Date & Time in live & recorded video 2) Image Sensor: 1/2.8" or better progressive Scan CMOS get color image even at night condition (Minimum Illumination: 0.006 Lux@ F1.4, AGC ON, 0 lux with IR or better) True Day & Night High Performance Mechanical IR cut filter with auto switch, Integrated IR Source (Auto, Manual)- Inbuilt IR LED's with effective distance upto 50 meter or better and 30 meter for colour view in night, Imaging: 1/3s to 1/30000s electronic shutter support, Auto Gain Control, White Balance- Auto, Back Light Compensation, Multi zone Privacy Masking, HLC, Digital Watermarking. 3) Compression (Minimum): Video:- H.265 or better, Audio:- G.711U/A, G.711Mu, G.726, AAC, G.723 4) Wide Dynamic Range:- WDR (120dB or more) 5) Digital Noise Reduction:- DNR (3D) On/Off 6) Video Streaming & Frame Rates :- Triple streaming, configurable Main stream: 4MP (2560×1440) 25/30fps Sub streams minimum: 720P@25/30 fps 7) Image Setting: Rotate Mode, saturation, brightness, contrast, sharpness adjustable through client software or web browser, Edge Analytics: Tripwire, Intrusion, Motion Detection 8) Cyber Security: AES 256-bit Encryption, Configuration encryption, trusted execution, Digest, security logs, account lockout, video encryption, IP/MAC filtering, HTTPS, trusted upgrade 9) Onboard Storage: Camera should support built-in Micro SD/ SDHC/ SDXC Card slot upto 512 GB. It should be supplied with minimum 128GB memory Card.					
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	10) Recording Management: Format SD, overwrite, storage management, video to NAS device, 11) Alarm Trigger : Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection 12) Network Protocol: SFTP, IPv6, IPv4, DNS, RTCP, NTP, RTP, HTTP, HTTPS, SNMP TCP/IP, PPPoE, NFS, UDP, ICMP, SSL, DHCP, SMTP, RTSPS, unicast, 13) System Capability: ONVIF, Camera shall support open source VMS 14) Ethernet: 1 RJ 45 10/100 Ethernet port 15) Audio : It should support 1 x Built-In Mic and 1/1 Alarm In/Out for External Mic. and Speakers as per site requirement. 16) Power Input: The camera should support simultaneous dual power input—12 VDC (via power adapter) and PoE (802.3af)—to ensure continuous operation in the event of a failure in one power source. 17) Power Requirement: 12VDC/24 VDC/PoE(802.3af)/ePoE 18) Housing/ Enclosure:- IP67 weather proof, IK10, Metallic body 40.4.1 40.4.2 19) Operating Condition:- Ambient Temperature:- (-)05°C to 50°C, humidity 95% (max) (non-condensing) 20) IR life: 40000 hours or higher 21) Video Bit rate: 32 KBPS - 8 MBPS or better 22) Standards: BIS with ER, STQC IoTSCS PPO Certified, CE, FCC and RoHS.					
2.1	4MP BULLET VERTICAL 50M IR 4MP @ 25/30fps@1440P (2560x1440) Outdoor Bullet Camera with 2.7 to 4 mm ~12 to 13.5mm or better Varifocal Motorized lens.	51	Each	10063.00	513213.00	DSR-25-40.4.1
2.2	4MP @ 25/30fps@1440P (2560x1440) Outdoor Bullet Camera with 2.7 to 4 mm ~12 to 13.5mm or better Varifocal Motorized lens.	8	Each	23754.00	190032.00	DSR-25-40.4.2

3	Supplying Installation Testing and Commissioning of PTZ (Pan,Tilt and Zoom) IP IR Camera having following specifications and features etc :- PTZ (Pan,Tilt and Zoom) IP IR Camera having following specifications and features etc :- 1) IP IR PTZ Camera: Motorized PAN TILT ZOOM with IR 2) Image Sensor: 1/2.8" or better progressive Scan CMOS 3)Signal System: PAL/NTSC 4) Minimum Illumination: 0.008 Lux@ F1.6, AGC ON,, 0 lux with IR, or better 5) Imaging: 1/1s to 1/30000s, Auto Gain Control , White Balance- Auto, Back Light Compensation, Image Rotation, Multi zone Privacy Masking (Upto 24 Area), HLC, Defog, Region Of Interest and EIS features. 6) On Screen Display: Camera should display Camera title, Date & Time in live & recorded video both. 7) Signal to Noise Ratio: > 50 dB 8) Event Notification: Through Relays, E-Mails or FTP 9) Day & Night: True Day & Night High Performance Mechanical IR cut filter with auto switch, IR Source- Inbuilt IR LED's with effective distance. The camera should have IR LED's and cover distance up to 300 meter or above 10) Auto Tracking: The camera should be equipped with Deep-learning-based auto tracking function using simultaneously all of the panning, tilting and zooming should be available. When a motion is detected in a registered monitoring area, the camera should track the motion (object) and capture it. 11) Pre/Post Event Buffering: The camera should support atleast of 5 seconds of pre & post event buffering. 12) Presets: 300 Presets 13) Video Compression (Minimum): H.265 or better, H.264, Audio:- G.711U/A, G.711Mu, G.726, AAC, G.723 14) Wide Dynamic Range: WDR (120dB or more), HLC & BLC 15) Digital Noise Reduction: DNR (2D+3D) On/Off 16) Image Setting: Rotate Mode, ROI ,EIS,					
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Defog, saturation, brightness, contrast, sharpness adjustable through client software or web browser 17) Profile Management: User configuration import, export 18) Cyber Security: Configuration encryption, AES 256-bit Encryption, Digest, account lockout, video encryption, IP/MAC filtering, trusted boot, trusted upgrade, trusted execution 19) Onboard Storage: Camera should support built in Micro SD/SDHC/SDXC Card slot upto 512 GB . It should be supplied with minimum 128GB Memory. 20) Recording Management: Format SD, overwrite, storage management, video to NAS device, remote archive access via FTP login 21) Edge based Video Analytics & Alarm Trigger: Motion/tampering detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection, Tripwire, Intrusion, Object Abandon/ Missing, SMD, Face Detection 22) Network Protocol: SFTP, IPv6, IPv4, DNS,NTP, HTTP, HTTPS, SNMP, TCP/IP, PPPoE, NFS, ICMP, DHCP, SMTP, RTSPS. 23) System Capability: ONVIF Profile S, G & T. CCTV Camera OEM should be fulltime member of ONVIF and quoted models should be listed on ONVIF official website (All the certifications & Credentials should be valid on the date of technical evaluation). 24) VMS: Camera shall support open source VMS 25) Connectivity: 1x LAN RJ-45 (10/100Base-T) 26) Audio Support: Audio Interface : The camera should have 1/1 Audio In/Out to connect External Mic and Speaker Audio Compression : PCM, G.711U/A, G.711MU, G.726, MPEG2-Layer2, G.722.1 27) Alarm In/Out : Alarm In/out- 7/2 Ch In/Out 28) Power Input: The camera should support simultaneous dual power input— DC/ AC (via power adapter) and PoE (802.3af)—to ensure

	continuous operation in the event of a failure in one power source. 29) Power Requirement: 24 VDC, 2.5 A ($\pm 25\%$), PoE+ (802.3at) 30) Enclosure & Weather Proof Standard: IP67 weather proof and IK10, TVS 8000V lightning proof, surge protection, voltage transient protection 31) Operating Condition:- Ambient Temperature:- (-)05°C to 50°C, humidity 95% (max) (non-condensing) 32) IR life: 40000 hours or higher 33) Video Bit rate: 32 KBPS - 8 MBPS or better 34) Standards: BIS with ER, STQC IoTSCS PPO Certified, CE, FCC and RoHS					
3.1	4 MP IP IR motorized PTZ (4MP @25/30fps or better) camera, Triple streaming , configurable on resolution Main stream: 4MP@25/30 fps Sub streams 1080p@25/30 fps & D1@25/30 fps or better, varifocal lens 4.5-135mm or better with Automatic & manual Focus Adjustment provisions, 30x Optical zoom and 12x Digital zoom with angle of viewH : 57°-2.4°, m, PAN Travel: Pan: 0° ~ 360° endless;Manual Pan: 300° /s, Preset : 300° /s, Tilt Travel: Tilt: 0-90°, auto flip 180°, Manual Tilt: 200° /s, Preset : 300° /s	4	Each	78389.00	313556.00	DSR-25-40.9.2

4	Supplying Installation Testing and Commissioning of following Channel Network Video Recorder (NVR) with camera licenses to record for all channels having specifications and features etc as mentioned below : 1) Network Video Recorder Embedded/ Installed OS (Linux) along with Camera Licenses to record per NVR and to provide a live view, storage and simultaneously Multi-channel playback of all IP camera or more and must be ONVIF with minimum support of 384 Mbps incoming Bandwidth. 2) NVR should support video compressions : H.265 or better, H.264, MJPEG. 3) Must support 1 channel RCA Input, 2 channel RCA Output for Two-way Talk with G.711U/A, G.711u, PCM, G726 audio compressions. 4) Intelligent auto power on when power resumes after power outage. 5) Storage: It should support minimum 8 SATA Slots with 20TB capacity/ Slot and RAID support of RAID 0/1/5/6/10. 6) Connectivity Interface : 2 Nos. x 10/100/1000 Mbps Ethernet Ports, 1x RS485, 1x RS232, 1x eSATA Port 7) Backup Interface : Its should have 4 Nosx USB port (2x USB3.0, 2xUSB2.0) 8) Video Output Ports: 2x HDMI and 2 VGA 9) Alarm Ports: It should have 16/8 Ch In/ Out ports to connect various type of external sensors and output devices like hooter/ Siren etc. 10) Email & SMS Altert options: Option for SMS/ Email Alerts to minimum 5 designated mobile number for power failure, HDD failure, vandalism, tempring, network disconnection and panic 11) Web & Mobile Application: Web, Mobile app (For iPhone, iPad, Android Phone) for alerts and viewing. 12) Protocols: HTTP, HTTPS, TCP/IP, IPv4/IPv6, UDP, DHCP, DNS, SMTP, UPnP, IP Filter, PPPoE, FTP, DDNS, Alarm Server, IP Search, Multicast, Auto Registration, ONVIF (Profile T, Profile S, Profile G), CGI, SDK and OEM Cloud for remote monitoring					
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without any public IP need. 13) Standards: CE, FCC, RoHS, BIS Certified 14) Power Supply : Should support AC100-240V, 50/60Hz Power supply. 5) Operating Condition : -5°C to 50°C, humidity 90% (max) (non-condensing) 16) The VMS application shall support all the features & functionalities of the offered cameras. 17) VMS should consist Licenses for all channels to record Cameras with General, motion detection, intelligent, alarm and POS recording modes. VMS should be provided with Camera Licenses , with no dependency of VMS licenses by binding with the MAC address of the cameras to achieve the functionality. 18) The NVR OEM shall be responsible for providing a mobile application compatible with both Android and iOS devices, enabling remote monitoring and playback of cameras/NVR footage. 19) The OEM must provide its own DDNS server hosted in India, eliminating the need for a public IP address for remote monitoring over the Internet. 20) Must support Continuous, Alarm, Motion, Instant, Panic Recording Mode 21) It should support Resolution: 32MP; 24MP; 16MP; 12MP; 8MP; 5MP; 4MP; 1080p; 720p; D1; CIF; QCIF 22) When alarm recording is enabled and an event occurs, you can click the alarm icon on monitoring page to view the alert details. The snapshot function is supported on monitoring and playback page 23) The Network Video Recorder (NVR) shall be configured to send email whenever a system message is created or an alarm event occurs. The email server shall be a valid SMTP server.

Each recipient email address shall be configured to receive any combination of critical, warning, or informational messages or alarm notifications. When an alarm occurs, the email message includes the NVR name, time of alarm and a list of camera that is configured to record upon alarm 24) It should have Web and GUI interface. 25) Built-In Artificial Intelligence: NVR should have built-in AI :- - 2 Channel face detection and recognition, - Minimum 4 Channel perimeter protection, - Minimum 8 Channel Smart Motion Detection 26) Face Recognition Database Capacity: It should support total Blacklist and Whitelist capacity of Minimum 20,000 Faces or more with Face Detection speed of 12 face images/sec and facility to add Name, gender, birthday, address, credential type, credential No., countries & regions and state to each face image. 27) Face & Human Attributes Search: Search Pictures/ Video by Gender, age group, glasses, expressions, face mask, beard, Top color, top type, hat, bag, age, gender and umbrella. 28) ANPR Capability: It should support ANPR Camera with License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle registration location etc vehicle attributes. 29) Alarm Notifications based on: Motion detection, video tampering, video loss, scene changing, PIR alarm, Camera external alarm, Face detection, face recognition, perimeter protection (intrusion and tripwire), ANPR, people counting, stereo analysis, crowd distribution, heat map, Disk Full, Storage Error, IP Conflict and abnormal behavior of fan, cybersecurity exception 30) Alarm Notification should be linked with Recording, snapshots, Camera external alarm output, buzzer, logs, presets and email. 31) General AI Based Search: Search Pictures by channel, time, event type, target

	classification (Fall Detection, People Approach Detection, People No. Exception Detection, People Staying Detection, Violence Detection. 32) Smart playback function: Should support smart search for the selected area in the video and smart playback to improve the playback efficiency 33) VCA (Video Content Analytic): Should support multiple video contented analytics based on camera analytics 34) Analytics by NVR: Perimeter protection and face recognition.					
4.1	32 Channel Network Video Recorder (NVR) having display split :- Main screen: 1/4/8/9/16/25/32(36), 2nd screen: 1/4/8/9/16	1	Each	64784.00	64784.00	DSR-25-40.11.1
4.2	64 Channel Network Video Recorder (NVR) having display split :- Main screen: 1/4/8/9/16/25/36/64, 2nd screen: 1/4/8/9/16	1	Each	82600.00	82600.00	DSR-25-40.11.2
5	Supplying, Installation, Testing and Commissioning following capacity Serveillance grade Hard Disk with upto 256MB/s Transfer Rate, 256 MB Cache, 7200 RPM Disk Speed, 3.5 inch form factor, SATA Interface, BSMI, ICES-003/NNB-003, CE, FCC, KC, Maghreb, RCM, UKCA, VCCI, CB-Scheme, TUV, UL Certifications.					
5.1	10TB (Terabytes)	6	Each	24798.00	148788.00	DSR-25-40.12.4
6	Supplying, installation, Testing and commissioning of following capacity 24 port Layer 2 indoor Network Switch having features and specifications etc. as mentioned here under: At least 24 X RJ-45 Gigabit Ethernet Ports and additional 2 X 10G Base -T with 4 X SFP Ports with non-blocking architecture by having Switching capacity of min. 168Gbps and packet forwarding rate of 125Mpps or higher, 16K MAC table. Console Port, USB port, Stacking support of min. 8 units per stack. Internal dual AC Power supply, STP, RSTP, MSTP, BPDU Filter, BPDU					

	Restriction, Min. 9K Jumbo Frame, LBD, IGMP Snooping V1/V2/V3, MLD Snooping V1/V2. IGMP /MLD Groups 1K or more, IPv4/IPv6 Loopback Interface, 16 L3 IP Interface, Ipv6 ND, VRRPv3, UDP Helper, ECMP. VLAN: 802.1Q, Port based, Q-in-Q, Multicast VLAN, Protocol VLAN, VLAN Trunking, DHCP Snooping, Server, server Screening. RADIUS , TACACS+ Authentication, QoS: 802.1P, 8 queues per port, QoS : WRR, Strict+WRR, WRED, 802.1p. ACL: MAC based, IPv4C IPv6, TCP/UDP Port number, time based ACL, TFTP Client, SNMP V1, v2c, v3, SNMP traps, RMON, DHCP server, relay, client, LLDP, LLDP-MED, OAM, Dying Gasp, 802.3ah, sflow, RIP, OSPF v2/v3, policy based route, SSL, SSH. 6 kV surge protection on all Gigabit Ethernet ports and on all GE RJ-45 access ports. Certifications: UL, CE, FCC, RoHS, MTCTE, OEM/Product must be on Trusted Telecom Portal of Department of Telecommunication, Government of India etc. complete as required.					
6.1	24 port PoE Layer 2 Network Switch with PoE Support of 370W or higher with each copper port supporting 802.3at PoE+ min.	7	Each	125393.00	877751.00	DSR-25-39.3.1
7	Supplying and fixing of following size Wall Mount Rack having Fixed Structure with 0.8mm CRCA Sheet, completely knocked-down condition (CKD) Shape, Vertical Mounting Rail 1.6 mm with 'U'Marking, Minimum 2 cable entry/exit provision at Top and bottom with rubber protection, Front 5mm Toughened Glass with lock, wall mounting kit, Powder coated Color-RAL- 7035, complied with UL & RoHS, 2 x 6 sockets 16A power distribution units, 3 numbers closed cable organizer, Hardware mounting screws packet of 20 x 1 number, etc. complete as required.					
7.1	9U Rack	9	Each	8960.00	80640.00	DSR-25-39.23.2

8	Supplying Installation Testing and Commissioning of 24 port Cat6 Patch Panel loaded. Must be of 1U height with clear label holders and white label with the panel. 24 Ports Cat-6 Patch Panel 24 Ports Cat-6 Patch Panel should have ETL/UL verification program certificate for compliance with ANSI/TIA-568.2-D etc. complete as required.	9	Each	5278.00	47502.00	DSR-25-39.11
9	Supplying, Installation, Testing and commissioning of following CAT6 Patch Cord should have ETL/UL verification program certificate for compliance with ANSI/TIA-568.2-D etc. complete as required.					
9.1	Copper Patch Cords of length 1m (3ft)	100	Each	151.00	15100.00	DSR-25-39.12.1
10	Supply and fixing of PVC box for mounting of CCTV camera, made of suitable size heavy duty PVC enclosure with hinged cover, suitable for outdoor/indoor installation, including drilling of holes, fixing with suitable screws, rawl plugs, glands, sealing arrangement and making proper entry for camera cable, complete as required for proper mounting and protection of CCTV camera connections etc as req.	100	Nos	101.00	10100.00	MR
11	Supplying and drawing following core Multi mode Fiber Optic Cable having corrugated steel armoring, lesser optimize 50/125 μ m with HDPE jacket, LSZH (Low smoke Zero Halogen), Tight-buffered or loose tube, maximum attenuation: < 3.5 dB/km at 850 nm, < 1.5 dB/km at 1300 nm, bandwidth > 2000 MHz-km at 850 nm, > 500 MHz-km at 1300 nm compliance and certifications: ISO/IEC 11801 Ed. 2.2, ANSI/TIA-568 C.3, ITU-T G.651.1 RoHS compliant. Multi Mode Fiber shall be Central-loose tube filled with Thixotropic jelly, duly following Standards: ISO 11801, IEC 60793 1/60794-1-2, ITU-T-REC G.652D and Telecordia GR 20-core, High quality Electro Chromium Coated Corrugated Steel tape (ECCS) and HDPE- Sheath, Operating ambient Temperature					

	should be – 5 0C to +50 0C and Storage Temperature should be – 5 0C to +50 0C, Maximum Attenuation $\pm$ 3.5 dB/km at Operational Wavelength 850 nm and $\pm$ 1.5 dB / km at Operational Wavelength 1300 nm . type of fiber should be 50/125 / G.652D & Refractive Index should be 1.483/1.478, The value for Mode-filed,Cladding Diameter $50 \pm 2.5 \mu\text{m}$ and $125 \pm 1\mu\text{m}$ correspondingly i/c splicing & marking etc complete as required.					
11.1	6 Core Multi Mode Optical Fiber Cable	300	Meter	87.00	26100.00	DSR-25-39.20.1
12	Supply and fixing following port Rack Mount loaded LIU with pigtail, Front-mounted cable saddles for jumper management, suitable to manage both splices and terminations, Pre-assembled shelves in multiple configurations, Rubber fiber slotted bracket built-in, metal splice shelf to protect the fibers, 2 fiber spools built-in for 900 μm tight buffered fiber storing, Capable of storing up to 3 meters of 900 μm tight buffered fiber per adapter, Removable front and rear covers for better access to interior of LIU, Should be Single / Multi mode LC Type fully loaded. Accessory kit consists of cable ties, mounting ear screws, and spiral wrap tube etc complete as required.					
12.1	6 Port LIU	2	Each	5471.00	10942.00	DSR-25-39.21.1
13	Supplying and fixing Patch Cord of Optical Fiber Multi Mode or Single Mode LC to LC Fiber Duplex having high precision ceramic ferrule with good concentricity, Fiber corning single mode G652D, Cable Type 2mm with Mechanical specification Apex Offset < 50 μm , Fiber Height + 100 nm, End-face radius of Curvature 7mm < R < 0.2 db, Working ambient Temperature – 5 0C to +50 0C, Storage Temperature – 10 0C to +50 0C, Length -- 2meter, Type -- LC-LC Duplex etc complete as required.	4	Each	705.00	2820.00	DSR-25-39.22

14	Supplying, drawing, Installation, Testing and commissioning of CAT6 UTP LSZH 23AWG Twisted Pair Cable in existing conduit/ on surface, Category 6 Unshielded Twisted Pair, 4 pair should be complied as per UL/ETL verification program for compliance with ANSI/TIA-568.2-D standard. Outer diameter should be in the range of 6.1mm nominal with Operating Temperature Range : -5° to +60°C, Bending Radius : < 4 X Cable Diameter at -5°C ± 1°C and Pulling Force : 11.5Kg etc. complete as required.					
14.1	1 run of cable	2500	Meter	60.00	150000.00	DSR-25-39.17
15	Supply and fixing of pole mounting bracket for CCTV camera, fabricated from suitable size M.S. flat / angle, duly welded and drilled for mounting of CCTV camera and junction box, suitable for fixing on pole, including nuts, bolts, washers, clamps, anti-rust treatment and painting with two coats of synthetic enamel paint over one coat of primer, complete as required.	5	Nos	2670.00	13350.00	MR
16	Supply and laying of 40 mm dia HDPE duct pipe having IS 4984:2016 standard for routing of CCTV camera signal cable, made of HDPE pipe of suitable grade, including cutting, jointing, laying along wall/ceiling/underground as required, with necessary clamps, saddles, bends, couplers and accessories, complete for proper protection and routing of camera signal cable as required.	300	Meter	182.00	54600.00	MR
17	Supply and fixing of 1GB SFP transceiver module, suitable for 1 Gigabit Ethernet communication over optical fibre, compatible with network switch/media converter, supporting required wavelength and distance, complete with installation, testing and commissioning as required.	2	Nos	20731.00	41462.00	MR
18	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the					

	wall and making good the same in case of recessed conduit as required.					
18.1	20 mm	500	meter	151.00	75500.00	DSR-25-1.21.1
18.2	25 mm	1000	meter	168.00	168000.00	DSR-25-1.21.2
	TOTAL				3053118.00	

Assistant Engineer (E) (P)
BBSR, CPWD, Bhubaneswar

Executive Engineer (E)
BBSR, CPWD, Bhubaneswar