



OFFICE OF THE MUNICIPAL COUNCIL: BALANGIR

Address: - Office of the Balangir Municipal Council Balangir, Opp. Of Rajendra Park Balangir.
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Letter No.- 1625

Date.- 04.04.2025

EXPRESSION OF INTEREST

EOIs are invited from intending firms/ dealers /consultants/reputed agency having adequate previous experience in preparation of Detail Project Report & quoted rate for "Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project" at vital points of Balangir town as per the Detail Tender Call Notice.

The consultants/firm/agency should file their rates including preparation of DPR, Supervision charge set with terms & conditions. The Quotationer should enclose the copy of documents in support of experience, registration, PAN/GST certificate with the quotations.

The quotations will be received up to Dt. 21.04.2025 till 01.00 PM through Registered/Speed post only and the same will be opened at 10.00 AM on Dt. 22.04.2025 in presence of the quotationers or their authorized representatives. The rate should be quoted Inclusive of all Tax, GST, Transportation charges, loading, unloading charges, Installation, Commissioning, Testing etc.. The Blank Bid documents for the works may be seen / download from the District Web Portal i.e <https://balangir.odisha.gov.in/> from Dt. 07.04.2025. The bidder in a position to complete the said project within 30 days of receipt of work order. Changes, corrigendum etc. if any will be updated at the mentioned portal only. For further queries/ comments, please contact to e-mail ID of Balangir Municipality i.e bgrmc1972@gmail.com. The Bidders have to submit the bid documents duly filled up along with attested photo copies of qualifying documents as indicated in eligibility criteria and the bidders shall have to produce original documents as per eligibility criteria if required for verification and the same will be verified by the Tender Committee constituted for the purpose on the date of the opening of the tender.

The details of quotation call Bids are to be submitted through sealed cover envelope containing two separate sealed envelopes for Technical and Financial Bids. The interested bidders should submit the complete quotation in the sealed cover addressed to The Executive Officer, Balangir Municipality-767001 (Odisha) super scribing as **Expression of Interest** "Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project" through Speed Post/ Registered Post on or before 21.04.2025 up to 1.00 PM.

The undersigned reserves all the rights to accept or reject all or part of the process without assigning any reason thereof.


Executive Officer
Balangir Municipality
21/4/25
Executive Officer
Balangir Municipality

Memo No...1626..... Date...04.04.25.....

Copy submitting to the Collector and District Magistrate, Balangir/ The Superintendent of Police Balangir/Project Director, D.U.D.A, Balangir /Project Director, D.R.D.A,Balangir/C.E.O. WODC, Balangir for information with a request to display the notice of their Office Notice Board.


Executive Officer
Balangir Municipality
Executive Officer
Balangir Municipality

Memo No...1627..... Date...04.04.25

Copy to the Director, I & P R, Bhubaneswar with a request to publish the above advertisement once in one English and one Odia daily and submit the conformation for necessary compliance and payment.


Executive Officer
Balangir Municipality
Executive Officer
Balangir Municipality

Memo No...1628..... Date...04.04.25

Copy to forward to the District Informatics Officer, N I C, Balangir for information with a request to host the tender in the District Portal for wider Publicity.


Executive Officer
Balangir Municipality
Executive Officer
Balangir Municipality



EXPRESSION OF INTEREST (EOI)

Selection of Agency for “Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project ”

EOI No. – 1625/Dt.04.04.2025

Balangir Municipality

Introduction & Background

Vision of the project is to implement holistic and integrated video surveillance system for the selected locations in Balangir City. This system shall also integrate with surveillance systems of existing Phase-1 implementation of CCTV Surveillance with the objective of enhancing safety and security in the city. The system shall help-

- Support police to maintain Law and Order
- Act as an aid to investigation
- Improve Traffic Management
- Help in deterring, detecting and thus dealing with criminal activities
- Address threats from Terrorist/Gangwar/Riots attacks
- Attain faster turnaround time for crime resolution and proper investigation
- Monitoring of suspicious people, vehicles, objects etc. with respect to protecting life and property and maintaining law and order in the city
- Continuous monitoring of some vital installations/ public places in Balangir area for keeping eye on regular activities & for disaster management support

The Proposed video surveillance system will enable the above by following:

- Providing alerts/ feedback to the Police Department about abnormal movements/ suspicious objects etc.
- Better Management of Security breaches based on alerts received from system
- Improved turnaround time in responding to any investigation case, faster access to evidence in case of

1.1 Location & Area

Balangir is one of the important industrial district in the state of Odisha having its own geographical importance.



1.2 Topography

The district is bounded on the North by Barhgarh district, on the west by Nuapada district, on the south by Kalahandi district, on the East by Subarnapur and Baudh district.

1.3 Demography

According to the 2011 Census, it is one of the one of the most populous city of Odisha. As per 2011 Census, Balangir has a population of 16.48 lakhs. The approximate area of the Balangir city is 6575sq. Km.

2 Project Aim & Objective

Office of SP, Balangir aimed at CCTV surveillance and Traffic Signal System at selected locations of the city, covering below parts:

- 1. Traffic Signal System at selected locations for disciplined traffic flow.***
- 2. CCTV Camera surveillance system at selected locations integrated with Central Control Room***
- 3. ANPR system at selected locations for vehicle movement monitoring from Central Control Room***
- 4. Centralized Video Management Software(VMS) at Central Server***
- 5. Integration with existing Central Control Room(CCR) for monitoring of all system***
- 6. Dedicated fibre cable network of the entire route from each location connectivity to Existing Control room***

3 Project Stakeholders

3.1 Key Stakeholders

The project requires collaboration between multiple stakeholders for its successful execution. It is therefore important to understand the various stakeholders envisioned to be part of this project and the role that they are expected to play. Following are the critical stakeholders whose involvement will drive the project and enable the establishment of a strong project governance.

- Office of SP, Balangir
- Police Stations under office of SP, Balangir
- District Police and Traffic Police
- Regional Transport Office(RTO)
- District Administration
- Master System Integrators(MSI)
- Major System OEM
- Citizens

4 Project Components

4.1 Project Components Overview

An overview of various components that will be implemented as part of this surveillance Project and the components that will be integrated with the same is provided in table below:

#	Project Components	Implementation
1	CCTV Camera	√
2	Traffic Signal System	√
3	Centralized VMS system at control Room	√
4	ANPR system at selected location	√
5	Operation Control Room / ICCC with Setup	√
6	Dedicated Optical Fiber cable Network backbone with Power source from nearby location to Pole/Junction box	√

4.2 Indicative Scope of Work

The SI appointed by Office of SP, Balangir, Government of Odisha shall be responsible for Implementation, Operations and Maintenance of the following systems and components:

ICT Components	IT Infrastructure Components
i. CCTV Camera	i. Centralized Command & Control Centre at Balangir SP office with complete IT and Non-IT Components
ii. Outdoor Junction Box	ii. Client Monitoring Station at Police Station
iii. Online UPS	iii. Dedicated Optical Fiber Network backbone
iv. Network Switch	iv. Server Hardware and Network Rack
v. ANPR camera & IR	iv. Video Wall Display and Monitors
	v. Operator Workstation and Desk

*Note: Bidder need to integrate all onsite camera, signal system with existing control room setup at Balangir. The SI shall do all required assessment and ensure compatibility with existing setup. However, authority may decide location on based on availability.

4.3 Details of Major locations

For the efficiency and disciplined traffic flow in the route which need to be redeveloped for efficient traffic monitoring and management. Authority has decided to install the traffic monitoring and surveillance system for selected locations in Balangir City. The tentative locations are as:

Installation of Additional Cameras and Traffic Signal System with existing integration:-

SL. No.	Location	Number of AI Camera	Number of ANPR Camera	Number of 4k Camera
1.	<u>Madhiapali Chowk</u>	-	02	-
2.	<u>Sudpada Beherapali Chowk</u>	-	-	02
3.	<u>Madangudia Chowk</u>	-	01	-
4.	Railway Station	-	01	-
5.	Govt. bus Stand	-	02	-
6.	<u>Sastri Nagar (KV School Turning)</u>	-	02	01
7.	<u>RTO Chowk</u>	-	01	-
8.	<u>Gandhinagar Pada</u>	-	01	-
9.	<u>Sadeipali (Solar Plant)</u>	-	01	-
10.	Children Park	-	-	03
11.	P.P Academy	-	-	02
12.	Hotel Management (By Pass)	-	02	-
13.	Govt. Hospital	02	-	-
14.	<u>Kandhapali Pada</u>	-	-	-
15.	<u>Brahman Pada Bridge</u>	-	-	02
	Total	02	13	12

Traffic Signals at 5 Locations

1. Bikram Chowk
2. Lokanath Temple/Sonepur Chowk
3. Shantipada Chowk
4. Sudpada Chowk
5. College Chowk.

Note: These locations are tentative only. Number of locations may increase or decrease now or later also and same to be integrated in the same control room system. Final co-ordinates points of locations shall be as per final decision of authority and will be provided to implementing agency at implementation stage. Bidder to conduct site survey at final locations before installation.

5 Bidder Criteria and Instruction to bidders

5.1 Pre-Qualification

The bidders shall be evaluated based on the Pre-Qualification criteria mentioned below. The bidders should fulfil all the following eligibility criteria, as per details mentioned below. Bidders who fulfil all the Eligibility criteria, will be considered for further financial evaluation. The proposal failing to meet all the below pre-qualification eligibility criteria shall be disqualified and shall not be considered for financial evaluation process. Decision of Authority shall be final in this matter and would be binding upon the bidder.

Sr. No.	Criteria	Pre-qualification Criteria	Supporting Document
PQ-1	Legal Entity	<p>The bidder should be sole bidder and must be a company registered in India under Indian Companies Act 1956/2013 or Proprietorship Firm since last 3 years as on 31st March 2024.</p> <p>The Sole bidder must have GST registration & up- to-date Income Tax Return, PAN Number as on 31st March 2024.</p> <p>Bidder should be a sole bidder with full responsibility. No Consortium is allowed here.</p>	<p>Bidder shall submit:</p> <p>Copy of Certificate of Incorporation / Registration under Companies Act 1956/ 2013 / Partnership firms Act of 1932 / LLP Act of 2008 / Proprietorship Firm registration</p> <p>Memorandum and Articles of Association (if applicable)</p> <p>GST Registration Certificate</p> <p>Documentary proof for operations in India for a period of at least 3 years as on date of publication of bid</p>
PQ-2	Annual Turnover	<p>Annual Turnover:</p> <p>The bidder should have an average annual turnover of minimum INR two Crores in last 3 audited financial years (2023-2024, 2022-2023, 2021-2022).</p> <p>The net worth of the bidder must be positive in the last three financial years (2023-2024, 2022-2023, 2021-2022).ending on 31st March 2023.</p>	<p>Bidder shall submit:</p> <p>Audited statement for last 3 financial years (2023-2024, 2022-2023, 2021-2022).</p> <p>Certificate from the Statutory auditor / Independent Chartered Accountant with seal and signature clearly specifying the average annual turnover for the specified years (2023-2024, 2022-2023, 2021-2022).</p>

Sr. No.	Criteria	Pre-qualification Criteria	Supporting Document
PQ-3	Technical Capability	The bidder must have successfully delivered at least one project with supply and installation of CCTV IP Camera in any Police/Transport Dept/Smart City/City Surveillance/any Govt Dept/PSU project of Central Govt or any State Govt or UT in India in last 3 years	Bidder shall submit: Copy of Work Order/agreement having the scope of work, client details and project value. Completion/Partial completion certificate authorized by Govt. Representative of the client in case of ongoing works or (Notarized Self Declaration mentioning about project completion)
PQ-4	OEM Certificate	Bidder shall submit Authorization Certificate from manufacturer for Cameras, NVR, Traffic Controller and ANPR Software products.	Bidder shall submit: Signed copy of MAF from Camera and ANPR Software OEMs.
PQ-5	Site Survey Certificate	Bidder must do the site survey of existing system and new requirement to understand the complete requirement before bid submission. Bidder must submit the site visit report signed by tenderer authority as per format provided.	Bidder must submit Site Survey Report as per format signed by the tenderer/concern authority along with the bid else bid will be rejected..

Note:

- All self-certificates shall be duly signed and Stamped by Authorized signatory of the Bidder Firm unless specified otherwise the bids shall not be considered for further evaluation.
- Authority reserves the right to independently verify the documentary submitted by the bidder along with bid.
- The prospective Bidders shall enclose documentary evidence in support of the Pre-Qualification Criteria along with the Bid.

5.2 Instructions for bidder

Bidders shall submit the bid as per below instructions:

1. Bidder is required to submit the Earnest Money Deposit(EMD) in the form of Bank Guarantee(BG) from a Scheduled Bank. Scan copy of EMD shall be uploaded with the bid. MSME bidders shall be exempted for EMD on submission of valid documents.
2. In the case of Bidder whose tender bid are accepted for selection, bidder shall be required to submit PBG of 5% of contract value 10 days of receipt of Lol/Work Order in this regard. PBG will be

in the form of Bank Guarantee (BG) of any Nationalized/Scheduled bank drawn in the name of Balangir Municipality Valid beyond of the contract period i.e. Valid for 12 months.

3. In case of default by the selected agency on non-acceptance/ compliance of the work orders as per terms & conditions of contract, this PBG will be forfeited and contract will be cancelled. The PBG will be released after the completion or execution of all pending Work Orders.

5.3 Submission of Tender/EOI

The EOI is to be submitted in two bid system i.e. Cover I- Technical Bid and Cover II- Financial bid. Please enclose the TECHNICAL BID in a separate sealed Envelope (Marked as Envelope-1) & FINANCIAL BID in a sealed Envelope (Marked as Envelope-2) and all the two sealed envelopes should be placed in a Third Envelope (Marked as Envelope – 3) sealed and submitted to the undersigned super scribing with **“Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project” Balangir**.

Note

- i) The Tender Inviting Authority reserves all the rights to accept or reject any tender application without assigning any reason whatsoever.
- ii) If any contractor is selected for qualifying tender, he/she has to submit original documents as required by the TIA for necessary verification.
- iii) Tenders will be summarily rejected if any item in the statutory cover is missing.
- iv) Necessary deduction i.e. GST, IT, CESS etc. Will be made as per relevant Govt. order.

a. Technical cover containing,

- i) Up to date Professional Tax (PT) Clearance receipts and ITPAN, up to date Income Tax Return receipts valid up to the date of opening of the tenders. Application for Such clearance addressed to the competent authority may also be considered.
- ii) Up to date GST Registration Certificate and up to date and valid Return Certificate.
- iii) Registered Deed for Partnership Firm.
- iv) Work Order and Work Completion Certificate.
- v) Up to date audited balance sheet.
- vii) Experience profile should be furnished in given format in Annexure-B in the end of this page.

**THE ABOVE STATED NON-STATUTORY TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN
THE FOLLOWING MANNER**

Sl.No	Category Name	Sub Category Description	Details
A.	CERTIFICATES	CERTIFICATES (ALL CERTIFICATE SHOULD BE UP TO DATE)	1. GST Registration Certificate 2. PAN Card 3. P Tax Registration Certificate 4. Income Tax Returns
B.	COMPANY DETAILS	COMPANY DETAILS	1. Proprietorship Firm (Trade License) 2. Partnership Firm (Partnership Deed, Trade License) 3. LTD. Company (Registration Certificate, Trade License) 4. Co-Operative Society (Society Registration Certificate) Bye Laws, up to date Audited Balance Sheet. 5. Power of Attorney (Registered)
C.	CREDENTIAL	Credential	1. Completion Certificate for Similar Nature Of Work Done.

NOTE: FAILURE OF SUBMISSION OF ANY ONE OF THE ABOVE MENTIONED DOCUMENTS WILL RENDER THE TENDER LIABLE TO REJECT.

b. Financial Proposal:

i) The Financial proposal should contain the following documents in one cover (folder) i.e. Bill of quantities (BoQ). The contractor is to quote the rate (item wise against the total items cost of the intended job through price bidding in the space marked for quoting Rate in the BOQ.

ii) Only signed copies of the above documents are to be submitted.

iii) If Bidder wishes to submit any other prospective Plan and arrangement he can do so with a special cover bid other than the requirement.

6.1 Penalty for suppression /distortion of facts:

If any Tenderer fails to produce the Original hard copies of the documents or any other documents on demand of the Tender Inviting Authority within a specified time frame or if any deviation is detected in the hard copies or if there is any suppression, the Tenderer will be suspended from participating in the tenders one-Tender platform for a period of 3(Three) years. In addition, his user ID will be deactivated, and it will stand forfeited. Besides, the Tender Committee may take appropriate legal action against such defaulting Tenderer.

6.2 Rejection of Bid

The employer (Tender accepting authority) receives the right to accept or reject any bid and to cancel the bidding process and reject all bids at any time prior to the award of contract without there by incurring any liability to the affected Tenderers or any obligation to inform the affected Tenderer or Tenderers.

6.3 Award of Contract

The Tenderer who's Bid has been accepted will be notified by the Tender Inviting & Accepting Authority. The notification of award will constitute the formation of the Contract. The Agreement in Municipal Tender Form with incorporation of all the required documents, including all its addenda & corrigendum, Application and Financial Offer on Bill of Quantities (BOQ) will be executed between the Tender Accepting Authority and the successful Tenderer. The Tender Inviting Authority may ask for submission of the hard copy of all the uploaded documents of all eligible tenderers along with original, before awarding contract.

6.4 Formalities

During execution if any approval from the competent authorities is required the same has to be obtained by the tenderer/agency.

6.5 Specification

Before quotation of rate the tenderer should inspect the site and get fully acquainted with all physical and technical parameters related to the successful completion of the work.

6.6 Submission of DPR

After qualifying the tender, the L1 bidder has to submit the complete Detail Project Report (DPR) to the tender inviting authority.

6.7 Mode of Payment

Payment will be made as per the availability of the fund from the Municipality office for the respective project.

6.8 Security Deposit

The successful bidder has to submit the Performance Security Deposit amounting to 10% (ten percent) of the bidding value of the work in form of Bank Guarantee prior to signing of the agreement.

6.9 Warranty

All the items of this tender should be under warranty for 12 months with Comprehensive maintenance of one year.

6.10 All disputes will be settled within the jurisdiction of the Court of Balangir.

6.11 Supplementary/Additional items of Works:

Notwithstanding the provisions made in the related printed tender form, any item of work which can legitimately be considered as not stipulated in the specific price schedule of probable items of work but has become necessary as a reasonable contingent item during actual execution of work will have to be done by the Contractor, if so directed by the Engineer-in-Charge and the rates will be fixed in the manner as stated below-

- (a) Rate of Supplementary items shall be analyzed in the 1st instant extended possible from the rates of the allied items of work appearing in the tender schedule.
- (b) If the rates of the supplementary items cannot be computed even after application of clauses stated above, the same shall be determined by analysis from market rates of material, Labour and carriage cost prevailing at the time of execution of such items of work. Profit and overhead charges (both together) @ 10% (ten percent) will be allowed only. The contractual percentage will not be applicable.
- (c) Black market rates shall never be allowed.
- (d) It may be noted that the cases of supplementary items of claim shall not be entertained unless supported by entries in the Work Order Book or any written order from the tender accepting authority.

6.12 . Technical Evaluation Sheet: -

Sl. No	Documents	Marks
1	Valid Registration certificate	5
2	GST Clearance Certificate	5
3	Annual Turnover of minimum 3.00cr from last 3 years	5
4	Manufacturing Authorization Certificate	15
5	Layout Map	10
6	The bidder must have completed similar nature of work costing minimum Rs. 50.00 Lakhs with a single employer in any Financial year completed in last 5 years.	20
7	Presentation (Maximum 10 Mins)	40
	TOTAL	100

Note: The bidders have to get minimum 70 marks out of 100 for qualifying the Technical evaluation.

6.13 Cost of Bidding: -

The bidder will bear all costs associated with the preparation & submission of its bid & the authority will in no event or circumstance be held responsible or liable for these costs.

6.14 Amendment of Tender Documents: -

At any time before the deadline for submission of bids, the authority may, for any reason where at its own initiative or in response to a clarification requested by a prospective bidder, modify the tender documents by amending, modifying or supplementing the same. Any amendment or modification in the tender document would be published in the same web site: <https://balangir.odisha.gov.in/> where the notice for EIO will be published. Bidders are requested to visit the site regular for such kind of updates.

6.15 Site Visit: -

The bidder may wish to visit & examine the sites of the Project & obtain for itself, at its own responsibility & risk, all information that may be necessary for preparing the bid and entering into the contract. The Cost of Visiting the site (s) shall be borne by the bidder. Tending authority will not responsible to schedule/coordinate with the client for the bidders site visit and details assessment of the requirement.

6.16 Eligibility criteria for participation in tender:

The technical evaluation will be done on the following parameters and offers from firms not conforming to any of these parameters will be rejected.

1. The bidder should have valid GST Registration Certificate, P Tax & PAN. Bidder shall have to submit photocopy of the documents.
2. The bidder should have at least 5 years' experience of CCTV Surveillance System installing in major urban areas. Necessary documents (Work Order/Completion Certificate of Govt. Organization / PSUs) has to be submitted.
3. The bidder should have executed at least three or more similar nature projects not less than 1 Cr commutative in last 5years.
4. Bidder's experience working with Police Department of any state will be preferred.
5. The bidder should have total turnover of not less than Rs. 3 Crore in the last three financial years. Bidder shall have to Audited Balance Sheet of minimum 3 financial years (,2022-2023,2023-2024,2024-2025).
6. Manufacturer's tender specific authorizations (MAF) for main items i.e., Recoding Server, Camera, ANPR and Video Analytic Software, Video Display, Field Switches, SPD, All Traffic Items, UPS.
7. Cameras & Analytics servers should be UL listed, CE and FCC Certified.
8. Camera Test Report of UL accredited lab with lab accreditation certificate.
9. The bidder should be an ISO Certified organization. Copy of valid Certificate is to be submitted.
10. The bidder should be MSME Registered unit.
11. The bidder shall not have been blacklisted by any State/Central Government or PSU Organization or bilateral/multilateral funding agencies for breach of ethical conduct or fraudulent practices as on date of submission of the proposal. Declaration on bidder's letter head to be submitted.
12. MSME/NSIC Registered units should have Relevant Documents to be submitted along with Technical Bid.
13. Analytics server, Camera & Field switch should be from same OEM for better performance and seamless integration
14. All technical compliance to be signed & stamp by OEM on their letterhead.

15. Camera OEM should be in Top 5 CCTV Brand Globally as per HIS Report, Documentary Proof Required.
16. Camera OEM should have direct presence in India from last 5 years or more, Documentary Proof Required.
17. Camera OEM should have factory in India or any third-party arrangement for Manufacturing, Documentary Proof Required.
18. Camera & NVR OEM should have supplied 5000 + Cameras in Government sector / PSUs, Documentary Proof Required.
19. OEM should have own dedicated CCTV support center available during working hours and a fully equipped repair and maintenance office in India.
20. CCTV OEM should have its own service center (not through joint venture, partnership firms or through any other association). Only 100% Subsidiary will be considering for direct presence.
21. Site Inspection Report must be submitted with tender documents after duly signed by Municipal authorized officer.


Executive Officer
Balangir Municipality
Executive Officer
Balangir Municipality

ANNEXURE- B

Experience profile (in technical cover)

List of projects completed that are similar in nature to the works executed for the last 5 (five) financial years i.e. from FY 2020-21 to 2024-2025.

Name of Work	Name & Address of Agency	Value of the Work	Date of Completion

Signature of Bidder

7.1 Amendment of Tender Documents

1. At any time prior to be last date for receipt of the bids tenderer may for any reasons, whether at its own imitative or in response to a clarification required by a prospective agency, modify the tender Documents by an amendments.
 - i. Such will be notified online as corrigendum on the website shall be binding on all bidders to consider the amendment for quoting.
2. Bidders are advised to regularly check-up the portal for updation of any such amendments and be sure before submission of bids.
3. No bid can be modified subsequent to the last date for receipt of bids No bid may be withdrawn in the interval between the last date for receipt of bids and the expire of the bid validity period specified by the bidders in the bid withdrawal of the bid during this interval may results in forfeiture of bidders EMD.

7.2 BID SUBMISSION

1. Tender bid must contain the name, office and addresses including telephone number(s) or the persons(s) who are authorized to submit the bid with their signatures.
2. All pages of the bid being uploaded must be verified, attested, signed, dated and sequentially numbered by the bidder irrespective of the nature of content of the documents otherwise the bid will be treated non responsive.
3. Bids NOT submitted as per the specified format and nomenclature will be out rightly rejected.
4. Ambiguous bids will be out rightly rejected.
5. Tenderer will Not be responsible for any delay on the part of the bidder in obtaining the terms and conditions of the tender notice or submission of the tender bids.
6. The bids submitted by fax/E-mail etc. shall NOT be considered. No correspondence will be entertained on this matter.
7. Any alteration/overwriting/cutting in the bid should be duly countersigned else it will be out rightly rejected. Conditional tenders shall NOT be accepted on any ground and shall be rejected straightway.
8. Tender process will be over after the issue of Selection letter (s) to the selected vendors(s).
9. Tenderer may at its own discretion extend the date for submission of bids.
10. Bids not quoted as per the format given by Tenderer will be rejected straightway.
11. No deviation from the tender specifications & terms and conditions will be accepted.

7.3 BID OPENING

1. The EMD, tender fee with details of BG respectively only will be opened in the first instance on the date specified in the tender.
2. Technical bids of only those bidders, whose Tender cost and EMD are found to be in order, will be opened afterwards.
3. Financial bids of only those bidders, whose bids found technically qualified will be opened.

7.4 Technical Evaluation

1. The Bidders are requested to furnish documents to establish the eligibility (indicating the page no in the bid) for each of the item in the documents should be highlighted, if a bid is not accompanied with all necessary documents. It may be summarily rejected.
2. Undertaking for subsequent submission of any of the eligibility documents will be entertained. However Tenderer reserves the rights to seek fresh set of documents seek clarification on the already submitted documents.
3. If in case any information furnished by the bidder is found to be false/ incorrect. Their bid will be summarily rejected and no correspondence on the same shall be entertained. Submission of false/forget documents will lead to disqualification of bidder.
4. A bid does not fulfill all the stipulated eligibility conditions/criteria will not be considered the bids conforming to the eligibility criteria only will be considered for further evaluation. If there is any lack of clarity in the submitted eligibility documents. Tender committee may ask concerned bidder representative to be present physically to prove their eligibility.
5. Tenderer may ask the bidder for any technical presentation or Proof of Concept on proposed solution to verify and validate the submitted bid.

7.5 Financial Bid Evaluation

1. The Financial Bid as per instructed format shall only be considered
2. The financial bid of only the technically qualified bidders will be open by tenderer and the same will be evaluate.
3. Tenderer will decide L1 on the basis of justified lowest price and technical evaluation.

7.6 Site Survey Report Format

SITE / PLANT VISIT REPORT

Tender No.

Tender Name/Title:

M/s hereby declares that I / we have visited
..... Site(s) located at on date

All our doubts and queries with respect to scope of work, terms & conditions of the tender document were replied / clarified satisfactory.

I / We have fully understood the scope / nature of the work and the conditions.

Representative of Bidder:	Representative of Balangir Municipality:
Name:	Name:
Signature:	Signature:
Designation:.....	Designation:.....
Date:	Date:
Place:	Place:

Note: The representative of the bidder must submit the authorization letter of the agency in their letter pad for attending the site visit. This declaration is to be submitted along with the documents required to be submitted in hard copy as mentioned in the tender document else bid will be rejected.

8 TECHNICAL AND FUNCTIONAL REQUIREMENTS SPECIFICATIONS FOR CCTV SURVEILLANCE SYSTEM

8.1 Technical specifications – Bullet Camera

Category	Parameter	Description
Camera	Image Sensor	1/2.7" 5 Megapixel progressive scan CMOS
	Effective Pixels	2592 (H) × 1944 (V)
	Electronic ShutterSpeed	Auto/Manual, 1/3 s–1/100000 s
	Video Frame Rate	Outputs max. 5MP (2592 × 1944)@20 fps, (1920 × 1080) @ 50/60 fps
	Min. Illumination	0.003 Lux@F1.3
	IR Distance	120 m (394 ft)
Lens	Lens Type	Motorized vari-focal
	Mount Type	Board-in
	Focal Length	7 mm–35 mm
	Field of View	H: 31°–9°, V: 23°–7° (2592 × 1944)
	Aperture Type	Auto (HALL)
Video	Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
	Smart Codec	Smart H.265+, Smart H.264+
	Stream Capability	3 streams
	WDR	120 dB or Better
	HLC	Supported
	Defog	Supported
	Smart Illumination	Supported
	EIS	Supported
	Noise Reduction	3D DNR
	Privacy Masking	4 areas
Audio	Audio Input& Output	1/1 channel In/Out
	Audio Compression	G.711a, G.711Mu, AAC, G.726, G.723
Network	Network	RJ-45 (10/100 Base-T)
	Protocol	IPv4; IPv6; HTTP; HTTPS; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE;802.1x; SNMP
	Interoperability	ONVIF (Profile S/Profile G/Profile T), CGI,Milestone, Genetec
	Edge Storage	NAS; FTP; SFTP; Micro SD card 256 GB included
Alarm	Alarm Input & Output	1 channel in: 5mA 3V–5V DC 1 channel out: 300mA 12V DC
	Alarm EventTrigger	Motion detection, Video tampering, Scene changing, Network disconnection, IP addressconflict, Illegal Access, Storage anomaly,

Power	Power Supply	DC 12V (±30%), PoE (802.3af)
Environment	Operating Temperature	-30° C to +60° C (-22° F to +140° F)/Less than 95% RH
	Protection	IP67, IK10
Intelligent function	Face Detection	Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion, and fear), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting
Intelligent function	People Counting	Support the counting of enter number, leave number, and pass number, and displaying and outputting yearly/ monthly/ daily reports. Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm.
General Intelligence	Event Triggering	Motion detection, video tampering, scene changing, network disconnection, IP address conflict, Illegal Access, storage anomaly.
	General Intelligence	Object Abandoned/ missing
Intelligent function	Perimeter Protection	Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection
Certificate	CE	CE-LVD: EN62368-1, CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU
	FCC	FCC: 47 CFR FCC Part 15, Subpart B
	UL	UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07
Brand	Approved Make	Dahua

8.2 Technical Specification for Bullet Camera for Surveillance

Category	Parameter	Description
Camera	Image Sensor	1/3" CMOS or better
	Max. Resolution	2688(H)×1520(V) or better
	ROM	128 MB
	RAM	128 MB
	Scanning System	Progressive

	Electronic Shutter Speed	Auto/Manual 1/3 s–1/100,000 s or better
	Min. Illumination	0.008 Lux @ F1.5
	Illumination Distance	60 m (IR)
	Illuminator On/Off Control	Auto/Manual
	Illuminator Number	4 (IR LED)
	Pan/Tilt/Rotation Range	Horizontal: 0°–360° Vertical: 0°–90° Rotation: 0°–360°
Lens	Lens Type	Motorized Vari-focal
	Lens Mount	φ14
	Focal Length	2.7-13.5mm
	Max. Aperture	F1.5
	Field of View	Horizontal: 104°–27° Vertical: 55°–15° Diagonal: 124°–31°
	Iris Control	Fixed
	Close Focus Distance	0.8 m–0.8 m
	DORI Distance	W: D: 64 m; O: 25.6 m; R: 12.8 m; I: 6.4 m T: D: 220 m; O: 88 m; R: 44 m; I: 22 m
Smart Event	IVS	Intrusion; tripwire
Video	Video Compression	H.265; H.264; H.264B; MJPEG
	Smart Codec	H.264: Yes H.265: Yes
	Video Frame Rate	50Hz Main stream (2560 × 1440 @ 25 fps); sub stream (704 × 576 @ 25 fps) Main stream (2688 × 1520 @ 20 fps); sub stream (704 × 576 @ 20 fps); Third stream: CIF@1fps 60Hz Main stream (2560 × 1440 @ 30 fps); sub stream (704 × 480 @ 30 fps) Main stream (2688 × 1520 @ 20 fps); sub stream (704 × 480 @ 20 fps); Third stream: CIF@1fps
	Stream Capability	3 streams

	Resolution	2688 × 1520 (2688 × 1520); 2560 × 1440 (2560 × 1440); 2304 × 1296 (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
	Bit Rate Control	CBR/VBR
	Video Bit Rate	H.264: 32 kbps–6144 kbps H.265: 12 kbps–6144 kbps
	Day/Night	Auto(ICR)/Color/B/W
	BLC	Yes
	HLC	Yes
	WDR	120 dB
	White Balance	Auto/Natural/Street Lamp/Outdoor/Manual/Regional Custom
	Gain Control	Auto/Manual
	Noise Reduction	3D NR
	Motion Detection	OFF/ON (4 areas, rectangular)
	Region of Interest (RoI)	Yes (4 areas)
	Smart Illumination	Yes
	Image Rotation	0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution.)
	Mirror	Yes
	Privacy Masking	4 areas
Audio	Audio Compression	G.711a; G.711Mu; G.726
Network	Network Port	RJ-45 (10/100 Base-T)
	Network Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; QoS; UPnP; NTP; RTMP; Multicast; HTTPS; SFTP; 802.1x; ICMP; IGMP

	Interoperability	ONVIF (Profile S/Profile G); CGI; Milestone; Genetec
	User/Host	20
	Storage	Cloud; FTP; Micro SD card (max. 256 GB); NFS
	Browser	IE Google Firefox
	Management Software	Smart PSS;DSS;DMSS
	Mobile Client	iOS; Android
Port	Audio Input	1 channel (RCA port)
	Audio Output	1 channel (RCA port)
	Alarm Input	1 channel in: 5mA 3V–5V DC
	Alarm Output	1 channel out: 300mA 12V DC
Power	Power Supply	DC12V/PoE(802.3af)
	Power Consumption	Basic power consumption: 2W (12V DC); 2.7W (POE) Max power consumption: (H.265, Max resolution, Max stream, WDR, IR full intensity, IVS): 8.2W (12V DC), 9.6W (POE)
Environment	Operating Temperature	-30°C to +60°C (-22°F to +140°F)
	Operating Humidity	≤95%
	Storage Temperature	-40°C to +60°C (-40°F to +140°F)
	Protection	IP67;IK10(optional)
Structure	Casing	Metal
	Product Dimensions	Φ244.1 mm × 90.4 mm
	Approved Make	Dahua/ CP-Plus / Honeywell

8.3 Technical Specification of Network Video Recorder(NVR)

Parameter	Description of 64Ch NVR
Star Features	Fisheye DE warp, Smart Track, POS(Optional), N+M Redundancy
Max HDD	8 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature. Supports Hot-swap.
Display	2HDMI, VGA
RAID	0/1/5/6/10
USB	2 USB3.0, 2 USB2.0
Motion Detection	Smart Motion Detection
Ethernet Port	2 Gigabit Ports
Redundancy	Redundancy N+M Hot Standby
Alarm In/Out	16/8 Input/ Output
Audio In/Out	1/1, 2-way
E SATA/Mini SAS	1
RS-232	1 channel, used to debug and pass through serial data
RS-485	1 channel, used to control PTZ, and it supports multiple protocols
Main Processor	Industrial embedded micro-processor
Resolution	12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/960p/720p/D1/CIF/QCIF
Video Output	VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 HDMI1/HDMI2: 3840 × 2160@30 fps, 3840 × 2160@25fps, 1920 × 1080, 1280 × 1024, 1280 × 720, 1 channel VGA output, 2 channels HDMI output, VGA and HDMI 1 homologous output, double HDMI heterogeneous output. Support 4K display for both HDMI1 and HDMI2
Multi-screen	1st Screen: 1/4/8/9/16/25/36/64

Display	2nd Screen: 1/4/8/9/16
Video Compression	Smart H.265+/H.265/Smart H.264+/H.264/MPEG4/MJPEG
Audio Compression	MP2/G726/G729/G722/G723/G711A/G711U/PCM
Multi-channel Playback	1/4/9/16
Record Mode	Manual, Schedule (General, MD (Motion Detection), Alarm, MD & Alarm, Intelligent, POS)
Backup	Hard drive, USB device, eSATA device
Playback Function	1. Play, pause, stop, fast forward, fast backward, rewind, play by frame 2. Full screen, backup (cut/file), partially enlarge, audio on/off
Face Recognition	24 channels
Face Detection Attributes	6 attributes: Gender, age, glasses, expression, mouth mask, and beard
Perimeter Protection	24 channels
ANPR Performance	8 channels
SMD Plus	32 channels
Video Metadata	12 channels
Stereo Analysis	32 channels
Intelligent Video	Tripwire, Intrusion, Abandoned/Missing, Scene Change, Face Detection, People Counting, Heat Map, ANPR by camera
Max Decoding	16ch@1080P
Max Input/Record	384Mbps/384Mbps
IP Video Inputs	64 channel

General Alarm	Motion detection, privacy masking, video loss, local alarm, PIR alarm, IPC alarm
Anomaly Alarm	Camera offline, storage error, full storage, IP conflict, MAC conflict, login lock, network security anomaly
Intelligent Alarm	Perimeter protection, face detection, face recognition, SMD, video metadata (human, motor-vehicle, non-motor vehicle), ANPR, people counting, stereo analysis, crowd distribution, heatmap, video quality diagnosis
Alarm Linkage	Record, snapshot, IPC external alarm output, buzzer, log, preset, email
Power Supply	Redundant, AC100V–240V, 50–60 Hz
Power Consumption	< 20 W (Without HDD)
Operating temperature	–10°C to +55°C (+14°F to +131°F)
Certifications	CE: EN55022, EN55024, EN50130-4, EN60950-1 FCC: Part 15 Subpart B, ANSI C63.4-2014 UL: UL 60950-1 and CAN/CSA C22.2 No.60950-1

8.4 Technical Specification for ANPR System Camera

SN	Functional Requirement Specifications for ANPR System	Compliance (Yes/No)
1	Automatic Number Plate Recognition(ANPR) Software	
A.	The System should automatically detect a vehicle in the camera view using video detection and activate Registration plate recognition.	
B.	The System should automatically detect the registration plate (for all states & UTs of India) including new and old registration marks, in the captured video feed in real-time and the system should perform Optical Character Recognition (OCR) of the registration plate characters	
C.	System should be able to detect and recognize the English alpha numeric registration plate in standard fonts and formats for classes of vehicles (provided as annexure) such as Cars, Heavy Commercial Vehicles, Three Wheelers and Two Wheelers or any vehicles that require Registration for plying on roads.	

D.	The system should capture HSRP & standard vehicle's number plates with an accuracy of at least 90 % day time, 80% or better during night time. Proposed ANPR application accuracy should be more than 90% in the ITMS/ Safe city / Smart city projects and End user certificate (Transport Dept/State Police) with min. 90% accuracy shall be submitted along with the bid.	
E.	The System should store JPEG image of vehicle and registration plate and enter the registration plate number into the database along with the date, time stamp, Lane No, Lane Details, and site location details including the Latitude and Longitude of the Pole /Gantry Locations.	
F.	The system should detect the color of all the vehicles on best effort basis, in the camera view during daytime and label them as per the predefined list of configured system colors. The system should store the color information of each vehicle along with the registration plate information for each transaction in the database.	
G.	The system should identify the category of the vehicle such as cars, Heavy Commercial Vehicles, Buses, Private Carriage, Three Wheelers and Two Wheelers and should store this information along with the registration plate information for each transaction in the database.	
H.	The system should have an option to store certain registration plates of vehicles which are stolen or suspicious. The system should have the functionality to enter such registration plate numbers to lists such as "Wanted", "Suspicious", "Stolen" etc. termed as hot lists of vehicles. The system should allow the user to import the vehicle registration plate data in the hot lists stored in Excel sheets for batch operation.	
I	The proposed ANPR Application, LPU and IR Illuminator shall be from the same single OEM with FCC certificate to ensure protection and accurate performance accuracy in day/night and single source liability.	
J	Proposed Traffic Enforcement Solution should have Certification of Security Assessment from any CERT-IN empanelled agencies. Same should be submitted along with the bid.	
K	In case of unavailability of optical fiber network, system should be able to transmit violation data at central by using SIM/dongle network.	
L	ANPR system shall be provided with 2MP Box camera with 5-50mm Lens per lane of 3.5 meter compatible with ANPR application to meet overall system requirement.	
2	Technical Requirements Local Processing Unit (LPU)	
A.	Chassis /Enclosure: Rack Mount or Tower Type with Industrial Grade Fanless	

B.	Motherboard Generation: Motherboard supports i3 with CPU with fanless design	
C.	Motherboard: Local Processing Unit shall be of min. 10th Generation with core i3 CPU or better	
D.	Memory: DDR4 2133MHz SODIMM, up to 16 GB	
E.	Solid State Drive: 960GB SSD	
F.	Secondary Storage: 2x2.5" SATA HDD/SSD Bay	
G.	Lan Interface: Min. 2 LAN Ports, 1G or better	
H.	Operating System: Linux /Windows(As per system requirement)	
I.	Physical Presence: Any globally reputed Manufacturer with direct presence in India from last 15 years	
J	Vibration/shock proof protection: Industrial Grade, Fanless, MIL-STD-810G certified for Shock & Vibration resistance to work at junctions/roads	
K	MAC Address: MAC address of the LPU should be on the name of the ANPR OEM.	
L	Power: Voltage Input: DC6~48V, AC Input: External Adapter (Option), Voltage Input: 100VAC~240VAC@50~60Hz	
M	Temperature: -10°C ~ 60°C	
N	Certifications: CE, FCC, BIS & MIL 810 G	
O	Integration: LPU should be proposed by ANPR OEM to have tight & seamless integration & for accurate performance and manageability, for proposed traffic analytics.	
3	Functional Requirements External IR illuminator	

A	Type: External IR illuminator with high performance LED (42 pcs high brightness IR LED), high efficiency, energy saving and environmental protection.	
B	Wavelength: ≥850 nm (Infrared)	
C	Illumination Range: minimum 50 mtrs	
D	Environment Protection: IP66 or better	
E	IR Power: 80 W	
F	Adjustable angle to appropriately focus at the number plate. Beam Angle: multiple options- 10 degree (standard), 15, 30, 45 degrees	
G	Surge level: Common mode 6KV, Differential mode: 3 KV	
H	Certifications: CE, FCC, RoHS, Eye Safety test report as per IEC:62471	
I	Protection function: Transient over peak suppression	
J	Housing material: Die-casting aluminium alloy	
K	User Interface: RS485	
L	Proposed IR Illuminator should be IEC-62471 certified. Valid test report should be submitted along with bid	

8.5 Technical Specification for Traffic Controller and Signal Lights

Parameters			
Supply Voltage	Industrial Grade 24V DC Power supply		
Supply Tolerance	- 15% to +20%		
Internal Current Consumption	65mA @ 24 VDC		
Inrush Current	2.5A @ 24VDC		
Battery Backup (In Event of Power failure)	5 years		

Separate Power Supply For Output	Not required	
Digital Inputs		
No. of Inputs	8	
Grouping	(4+1 Common)*2	
Type of Inputs	Sinking / Sourcing	
Input Voltage Range	0 - 28.8 VDC	
Level (Logic 0)	Max. 5VDC	
Level (Logic 1)	Min. 11VDC	
Max. Input Current	1.2 mA per input	
Hardware Delay	Max 10 mSec	
Digital Filter Time (Sampling Time)	28 mSec	
Min. Pulse Width	(Hardware Delay + Digital Filter Time) OR (System Loop Time) whichever is higher.	
Max. I/P frequency	10 Hz (for worst case condition)	
High Speed Level (Logic 0)	-	
High Speed Level (Logic 1)	-	
Max Input Current	-	
Max High Speed Input Current	-	
Min. Pulse width for High Speed Inputs (for 'low to high' or 'high to low' transition)	-	

Max. I/P frequency for high speed inputs.	-	
Digital Outputs		
No. of Outputs	8	
Grouping	(4+1 Common)*2	
Output Hardware	Relay (NO)	
Rated Load	5 A (Res.) @ 230 VAC / 30 VDC	
Max load per common	10 A	
Max operations	1x10 ⁵	
Protection	External Fuse	
Min. load for High Speed Output	-	
HSO frequency	-	
Approved make: Delta/Gis		
Between Output & Supply	2kV	
Between Input & Supply	2kV	
Communication		
PC Port (USB) (Mini)	Mini USB Port for PC Communication	
Isolation for USB Port	2kV between communication lines and internal circuit	
COM1 (RS-232 / RS-485)	RJ11 Port for HMI (or any MODBUS Device)	
COM2 (RS-485)	Screwing connector for GSM alarm Modem (or any MODBUS Device)	

Communication parameters	S/W selectable	
Communication Protocol	MODBUS Slave / MODBUS Master	
Functional		
Programming language	Ladder	
Scan Time	50 mSec max.	
User Program memory	256 kB	
User Data memory	8 kB	
Maximum no. of I/O s	112	
Maximum no. of Extension modules	6	
Indication		
Input	Yes (Green LED)	
Output	Yes (Red LED)	
RUN	Yes (Green LED)	
STOP	Yes (Red LED)	
ERROR	Yes (Red LED Blinking)	
Operating Temperature	0°C to 55°C	
Storage Temperature	-40°C to 70°C	
Relative Humidity	10-95% RH (non-condensing)	
Environmental Air	No excessive dust or corrosive gas allowed	
Dimension (W x H x D) (in mm)	72 x 90 x 58	

Weight (unpacked) Approx.	220g		
Mounting	DIN Rail (35 mm)		
Enclosure Material	UL 94 V0		
Degree of Protection	IP 20 for Terminals, IP 40 for Enclosure		
Certification	CE, Rohs		
EMI / EMC ESD Radiated Susceptibility Electrical Fast Transients Surge Conducted Susceptibility Power Frequency Magnetic Field Test Conducted Emission Radiated Emission Safety Compliance Test Voltage between I/P and O/P Impulse Voltage between I/P and O/P Single Fault Insulation Resistance Leakage Current Environmental Compliance Cold Heat Dry Heat Vibration	IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-11 CISPR 11 CISPR UL 508 2 kV IEC 60947-5-1 Level IV IEC 61010-1 UL 508 > 50 K Ohm UL 508 < 3 mA IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-6		
Supply Voltage	12 - 24 VDC		
Supply Variation	-10% to +25%		
Power Consumption (Max.)	2 W		
Protocol Conversion	Modbus RTU / ASCII to Modbus TCP		

Operation Mode		Modbus RTU / ASCII (Master / Slave), Modbus TCP (Server / Client)		
Configuration Management		HTTP Web Server and Application software		
Serial Interface	Number of Serial Ports	1		
	Serial Interface	Port1: Screw terminals for RS232, RS422 and RS485 interface		
	Signals	RS232 : RXD, TXD, GND		
		RS422 :TX+, TX-, RX+, RX-, GND		
		RS485 : TX+ (D+), TX- (D-), GND		
	Serial Interface Selection	For Port1: Mode selection using RST switch with Mode LED indication		
	Serial Communication Parameters	Baud Rate : 300bps to 115.2Kbps		
		Data Bits : 7,8 ; Flow Control : None		
		Parity : Odd, Even, None		
		Stop Bits : 1,2		
Fail safe resistor	4K7 Resistor Pull up (TX+) & Pull Down (TX-) on BUS			
Terminating Resistor	Connect externally if required			
Isolation	Isolation 2 KVrms			
LAN Interface	Port	RJ45, Ethernet 10/100 Mbps		
	LAN Isolation	1.5KVrms magnetic Isolation		
	Network Protocol's	Protocols for Communication : TCP/IP, Modbus		

	Supported	Standard Protocols used : HTTP, DHCP, AutoIP, UPnP, TCP, UDP, IP, ARP, ICMP, Protocols used for firmware updating : BOOTP, TFTP		
	Isolation	1.5KVrms magnetic Isolation		
Feature		Mapping and Background Processing Data Block (BPD)		
Configuration Software		Windows Based Software to Configure Ports as well as Selection of Protocol Driver		
Reset		Front Panel recessed , Loads Default Factory Settings & Serial Mode selection		
LED Indications		Serial TX and RX, LAN: LINK and Activity, Power ON, Error, Mode Selection Indication LED		
Operating Temperature		0°C to + 55°C		
Enclosure		Flame Retardant UL94-V0		
Dimension (W x H x D) (in mm)		72 X 90 X 58		
Weight (unpacked)		185 g		
Mounting		Base / DIN Rail		
Cold Heat		IEC 60068-2-1		
Dry Heat		IEC 60068-2-2		
Vibration		IEC 60068-2-6		
Repetitive Shock		IEC 60068-2-27		
Non-Repetitive Shock		IEC 60068-2-27		

<ul style="list-style-type: none"> • Made In India • Relay Base & Transistor Low Side modules • Stacking using FRC cable up to maximum 6 Expansion Modules • Isolated Digital Inputs with sourcing & sinking capability • 128 Weekly, Monthly & Yearly Time Switches each • GSM support through expansion • Physical switch for RUN & STOP program
<ul style="list-style-type: none"> • Analog Voltage/Current Inputs and Outputs of 0-10 V / 4-20 mA • PC Software for programming, online & offline simulation, online monitoring available through IOT • Standard RS232/RS485 port with RJ11 & RS485 port with screwing connector. • Multiple Timers, Counters including retentive counters, Hour meters & many more function blocks . <p>. Power supply 2no. required</p> <p>. OEM Presence in India Minimum 40Years, proper document required</p> <p>. OEM ISO 9001:2008, TS 16949 Certified Organization</p> <p>. OEM Tender authorization shall be submitted</p>

8.6 Technical Specification of Traffic Signal Aspects [Vehicular and Pedestrian]

Technical specs	RED	AMBER	GREEN Arrow	GREEN Ball	P.RED	P. GREEN
OPTICAL CHARACTERISTICS						
Technology	LEDs					
TYPE	Power LED					
Colour	Red	Amber	Bluish Green	Bluish Green	Red	Bluish Green
Colour Wave length	615 – 635nm	580 – 595nm	490 – 500nm	490 – 500nm	615 – 635nm	490 – 500nm
LED Aspect diameter	300mm diameter					
Minimum luminous Intensity of LED Aspects	400cd					
TECHNICAL CHARACTERISTICS						
Operating Voltage	230V AC +/- 10% / 12V DC / 24V DC					
Operating Frequency	50Hz ± 5%					
Maximum power consumption	< 12Watt					
LED Operating Temperature	0°C to +60°C					
LED module ingress	IP 65					
Constructional integrity	Comply					
GENERAL						
Signal head color	BLACK / Grey or as required by customer					
Signal head Material	Ultra Violet stabilized moulded Poly Carbonate or Mild Steel as required by Customer					
Lens	Ultra Violet stabilized moulded Poly Carbonate					

Dimming	Auto dimming (Optional) on demand
TEST, DECLARATIONS & MARKING	
LED manufacturer and Signal head manufacturer	ISO 9001 : 2015 Certificate
Marking and labelling	CE marking (EN 12368) Certificate
LED Module	IP65 Test Report
MAF	OEM Tender authorization shall be submitted on the name of bidder

8.7 Technical Specification Vehicular Count Down Timer [Vehicular and Pedestrian]

Full Color Count Down Timer	
OPTICAL CHARACTERISTICS	
Technology	LEDs
TYPE	Power LED
Color	Dual Color
Display	199seconds (Max).
TECHNICAL CHARACTERISTICS	
Operating Voltage	230V AC +/- 10% / 12V DC / 24V DC
Operating Frequency	50Hz ± 5%
Maximum powerconsumption	< 25 Watt
LED OperatingTemperature	0°C to +60° C
LED module ingress	IP 65
Constructional integrity	Comply
FUNCTIONAL CHARACTERISTICS	
Operating Mode	Self-Learning – Count down timer is equipped with micro controller. It automatically senses traffic signals, and learn timing, verify and display reverse counting from 3 rd cycle on ward unless there is no change in timings or switched OFF traffic signals.
GENERAL	
Enclosure colour	BLACK / Grey or as required by customer
Enclosure Material	Mild Steel with black colour powder coating for outdoor application
Lens	No Lens,
Dimming	Auto dimming (Optional) on demand
TEST, DECLARATIONS & MARKING	
Certificate	ISO 9001 : 2015,CE marking (EN 12368)
MAF	OEM Tender authorization shall be submitted on the name of bidder

8.8 Technical Specification for Field Network Switch

Category	Parameter	Description
Hardware	PoE	Supported
	Ethernet Port	8 PoE Ports (10/100/1000 Mbps)+ 1 Non-PoE Port(10/100/1000 Mbps)
	Layer	L2

	Switching Capacity	3.6 Gbps
	Packet forwarding Rate	2.678 Mpps
	Packet Buffer Memory	1 Mbit
	MAC Table Size	2K
	PoE Protocol	EEE 802.3af (PoE); IEEE 802.3at (PoE+);Hi-PoE; IEEE 802.3bt
	Long Distance PoETransmission	Supported
	Poe Assignment	Whole 8Core of Network cable
	Flow control	Enable By-default
	Antitheft Lock Hole	Supported
	Power Supply	Extremal Power Adapter: 53V DC
	Operating Temperature	-10 °C to +55°C (14 °F to 131°F)
	Operating Humidity	5% - 95%
	ESD	Air Discharge: 8KV Contact Discharge: 6KV
	Thunder proof	Common mode: 4 kV Differential mode: 2 kV
	Approved Brand	Dahua

8.9 Technical Specification for SPD (Surge Protection Device)

Specification of single phase Type1+2 SPD			
SL No.	Configuration	Description	Compliance
1	Description of SPD Type	Type1+2	
2	Network Voltage	230/400 V	
3	Maximum Continuous Operating Voltage (Uc)	320 VAC	
4	Temporary overvoltage withstand (Ut)	440 Vac	
4	Nominal Discharge Current, 15 X 8/20 μs (In)	30 kA	
5	Maximum Discharge Current, 8/20 μs (Imax)	100 KA	
6	Lightning impulse current (10/350 μs) (Iimp)	8 KA /Pole	
8	Protection Level (Up)	0.9 KV	

9	Technology	MOV	
10	Thermal Disconnecter	Internal	
11	Operating Temperature	-40/+85 °C	
12	Protection Class	IP20	
13	Housing Materials	Thermoplastic UL94-V0	
14	Remote signaling of disconnection	Optional	
15	Standards Compliance	IEC 61643-11 / EN 61643-11 / UL1449 ed.4	
16	Approved Brand	CITEL	

8.10 SPECIFICATION FOR SINGLE MODE UNITUBE ARMoured FIBER CABLE

Sl.no.	SPECIFICATION / QUALITATIVE REQUIREMENT
1	06-Core, Single mode 9/125micron primary coated buffers, 10G Ethernet OS2, Armoured Loose Tube, ECCS (Electrolytic Chrome Coated Steel) Tape, Jelly Filled Loose Tube.
2	Two Steel Wires/Rods embedded in outer periphery of the jacket as strength members. UV Stabilized jacket and protected from Rodent attacks
3	Complying to ANSI/TIA-568-C.3, ISO/IEC 11801, Telcordia GR-20 Core, ITU-T REC G.652D, IEC 60793-1/60794-1, EN 50173, RoHS Compliant
4	Suitable for use in indoor/outdoor ducts, direct burial and backbone cabling
5	Loose tube material: Polybutylene Terephthalate (PBT) with Natural/White Colour having Inner Diameter/Outer Diameter 1.7/2.5 ± 0.1 mm
6	Peripheral strength member as two steel wires/rods having dimensions as 0.6 ± 0.05 mm
7	Moisture Barrier as Water Swellable Tape, Armoring ≥ 0.150 mm (ECCS Tape), Number of Ripcords as 01 no polyester based yarns.
8	Outer sheath material as HDPE/LSZH with diameter as 7.5/8.5 ± 0.5 mm having thickness of 1.5mm nominal

Sl.no.	SPECIFICATION / QUALITATIVE REQUIREMENT
9	Weight of the cable for 04/06/0812 core (HDPE/LSZH): 65.0/75.0 ± 10 kg/km, for 24 core (HDPE/LSZH): 75.0/95.0 ± 5 kg/km
10	Fiber colour and Loose tube colour as per ANSI/TIA standards.
11	Tensile Strength : 1000 N, Crush Resistance : 4000 N/100mm
12	Minimum bend radius: 20 x Diameter (during installation), Minimum bend radius: 10 x Diameter (during full load)
13	Fiber Type: G. 652D (OS2)
14	Attenuation: ≤ 0.38 dB/km (@1310 nm), ≤ 0.25 dB/km (@1550 nm)
15	Chromatic Dispersion: ≤ 3.5 ps/nm.km (@1285 - 1330 nm), ≤ 18 ps/nm.km (@1550 nm)
16	Zero Dispersion Wavelength: 1300 - 1324 nm
17	Zero Dispersion Slope : ≤ 0.092 ps/nm ² .km
18	Polarization Mode Dispersion: ≤ 0.2 ps/vkm
19	Cut-off Wavelength: ≤ 1260 nm
20	Mode Field Diameter: 9.2 ± 0.4 μm (@1310 nm) , 10.4 ± 0.4 μm (@1550 nm)
21	Core Cladding Concentricity Error: ≤ 0.8 μm
22	Cladding Diameter: 125 ± 1 μm, Coating Diameter: 245 ± 10 μm
23	Cladding Non-circularity: ≤ 1 %
24	Installation Temperature: -20 °C to +70° C, Operating Temperature : -20 °C to +60° C
25	Cable Size and Standard Length: 4F to 12F : 4.0 kms ± 10% 24F : 2.0 kms ± 10%
26	Approved Brand: STERLITE / Legrand / CommScope

8.11 SPECIFICATION FOR SOLID CABLE CATEGORY 6 UTP FR-PVC

SR.NO.	SPECIFICATION / QUALITATIVE REQUIREMENT
1	The 4 pair Unshielded Twisted Pair cable shall be UL Listed.
2	This cable well exceeds the requirements of ANSI/TIA-568- C.2 and ISO/IEC 11801 Class E
3	Nominal Outer Diameter of Cable should be 5.6 ± 0.2 mm and Conductor Diameter 23 AWG
4	Construction: 4 twisted pairs separated by internal PE Cross Separator. Full separator. Half shall not be accepted. RipCord is must.
5	Conductor: Solid bare Copper, Outer jacket sheath: FRPVC with UL approved CM/CMR rated cable. Jacket color: Grey
6	Insulation Material: High Density Polyethylene (HDPE) with Insulation Diameter: 0.89 ± 0.01 mm
7	Dielectric Strength of cable should be 2.5 KVDC for 2seconds
8	Bending Radius : < 4X Cable Diameter at $-20^{\circ}\text{C} \pm 1^{\circ}\text{C}$ Pulling Force: 25.35 lbs
9	Electrical Parameters: Insertion loss (Attenuation), NEXT, PSNEXT, ELFEXT (ACRF), PSELFEXT (PSACRF), Return Loss, ACR and PS ACR.
10	Insertion Loss of 32.8 db/100m at 250 MHz
11	Cable should support operating temperature from -20° to $+70^{\circ}\text{C}$
12	Cable support Conductor Resistance $\leq 9.38 \Omega/100\text{m}$ Max.
13	Mutual Capacitance of cable should be $< 5.6 \text{ nF}/100\text{m}$ Max.
14	Resistance Unbalance of cable should be 5% Max.
15	Capacitance Unbalance of cable should Max. 330 pF/100m
16	Cable support Delay Skew: $< 45 \text{ ns}/100\text{m}$, Operating Voltage: 72V
17	Nominal Voltage of Propagation (NVP): 69% and Current Rating: 1.5 A Max.
18	Impedance: $100 \pm 15 \Omega$ @100 MHz. and Propagation Delay@250 MHz : 536 ns/100m
19	Approved Brand: Digisol / Legrand / Comm Scope

8.12 SPECIFICATION FOR FIBER RACKMOUNT LIU LOADED DRAWER TYPE 06/12/24 PORT

SR.NO.	SPECIFICATION / QUALITATIVE REQUIREMENT
1	The Fiber Rack mount LIU loaded having Adapter panel fixed on drawer base frame, with Adapters and with Pigtails and assembled with splice tray as per the Loaded fiber port requirement and their applicable accessories.
2	Suitable to mount at different positions (depth wise) on standard 1U 19 inch racks. Drawer type to pull out for easy maintenance when assembled in racks.
3	Cold Rolled Steel material with black powder coating
4	Three types of cable entry holes for different size cables through cable glands, covered with rubber cable grommets/covers.
5	Splicing of 24 fibers in each plastic fiber splicing trays with integrated cable spool design.
6	Non removable top cover and no rear cover. Drawer type to pull out for better access of interior.
7	As per the Loaded fiber port requirement, Loaded 16 (SC Simplex) adapters with SC SIMPLEX Pigtails on rack mount ports.
8	As per the Loaded fiber port requirement Accessories kit consists of Cable management rings/Cable saddles, Cable glands (PG13.5, 2 nos), Splice rods, Blanking clips, Velcro ties, Cable ties, Cable inlet/outlet hole covers (2 types, 2 noseach)

9	Cable management rings/Cable saddles can be mounted inside the rack mount, no provision to mount outside in front of the adapter panel.
10	Suitable for storing up to 1 meter of 900 µm tight buffered fiber pigtail per adapter.
11	Panel Dimensions: 482 x 220 x 44.3 mm (Length x Width x Height)
12	Splice Tray Dimensions: 220 x 90 x 15 mm (Length x Width x Height)
13	Port identification numbers printed on the Adapter panel
14	Standards: Comply as per ANSI/TIA-568-C.3, ISO/IEC11801, RoHS Compliant.
15	Operating Temperature: -20 °C to +70°C Installation Temperature: -20 °C to +70° C
16	Approved Brand: Digisol / Legrand / Comm Scope

8.13 Specifications for 2KVA UPS

Sl. No.	Minimum Technical Specifications	
1	Capacity (in kVA / kW)	2kVA/1.6kW 1-Phase Input / 1-Phase Output with IGBT Rectifier
2	Input Voltage Range	110-300VAC
3	Input Frequency Range	40 - 70Hz
4	Nominal Output voltage	200/208/220/230/240 VAC
5	O/P Voltage	200/208/220/230/240Vac
6	Charging Current	6 A
7	Efficiency (Min)	89%
8	Output Socket	Output Socket. Minimum 2 nos - Indian Socket & 1 Terminal Block inbuilt to the UPS back
9	Backup Required	Min.4680 VAH (for 800Watt Load)
10	Battery Bank Voltage	72 VDC
11	USB Port should be available	Require
12	RS232 Port & SNMP enabled	RS232 port require & SNMP for Remote monitoring.
13	Product IP	IP 20
14	Inbuilt Automatic Bypass	Require
15	Intelligent Battery Management	Require
16	Battery Deep Discharge Protection	Require
17	ECO Mode	Require
18	Manufacturer	QMS: As per ISO 9001: 2008 EMS: As per ISO 14001: 2004 OSHAS: As per ISO 18001: 2007 TL9000 Factory calibration lab of manufacturer shall be NABL accredited in India
19	ROHS	Yes
20	1 Years Warranty for UPS & Battery. OEM should have Turnover more than 400Crores for last 3 years.	
21	Approved Brand: Delta	

8.14 Technical Specifications of Standard Pole

Material	
Material	Class 'B' Pipe
Standard	ISI mark
Dimensions	
Height	3000mm
Diameter	114mm
Wall thickness	4.5mm +/- 10%
Base plate	
Size	300mm x 300mm
Wall thickness	12mm
Color	
Colour	Yellow colour recommended or as per client's requirement.
Paint	Spray paint (Outdoor application) with two coats of primer
Foundation	
Foundation type	Surface mount on RCC foundation
Foundation Accessories	J Bolt 4 x 500 mm
Brand	Repeated

8.15 Technical Specifications of Cantilever Pole

Material	
Material	Class 'B' Pipe
Standard	ISI mark
Dimensions	
Height	5000mm
Diameter	141mm
Wall thickness	4.5mm +/- 10%
Overhang Arm Length	2000 - 3000mm
Overhang Arm Diameter	115mm
Base plate	
Size	500mm x 500mm
Wall thickness	20mm
Colour	
Colour	Yellow colour recommended or as per client's requirement.
Paint	Spray paint (Outdoor application) with two coats of primer
Foundation	
Foundation type	Surface mount on RCC foundation
Foundation Accessories	J Bolt 6 x 750mm
Brand	Repeated

9. Bill of Material and Price Bid format

Sl. No	Items	Unit	Qty	Unit Rate	GST	Total Price
1	4MP IP Bullet vari-focal with Facial Recognition Software, 7-35mm lens, 120db WDR, inbuilt mic with 256 micro SD (optional) for local storage in case of network with inbuilt analytic failure- Refer Technical	No.	1			
2	4MP IP Bullet vari-focal Bullet camera with 2.7-13mm lens, 120db WDR, inbuilt mic with 256 micro SD (optional) for local storage in case of network with inbuilt analytic failure- Refer Technical	No.	1			
3	ANPR System with required camera, IR and processing Unit/Server and license for one lane per location as per tender requirement	Set	1			
4	Video Recording Server cum NVR with Inbuilt and storage for 30 days.	Set	1			
5	Operator Workstation with Monitor, mouse and keyboard as per system requirement	Set	1			
6	8 port 10/100/1000mbps intelligent PoE manageable switch 1G 2no copper uplink	No	1			
7	Enclosure for outdoor UPS & Switch with proper cooling arrangement	Set	1			
8	6 core Armour OFC cable with Laying & Termination	Mtr	1			
9	Advance Traffic signal Controller fully automatic and Touch screen programmable panel with MS cabinet	Set	1			
10	1.5sqmm 12 core Armoured Copper cable supply with laying	Mtr	1			
11	1.5sqmm 6 core Armoured Copper cable supply with laying	Mtr	1			

12	32-40mm HDP Pipe with road cutting, Soil excavation, refilling and road cutting	Mtr	1			
13	12"(300mm diameter Traffic Signal aspect (Red/Amber/Green straight/Green right) in polycarbonate moulded compact smart LED retrofit kit, visibility distance minimum 500mtr	Set	1			
14	Count Down Timer 199 second display capacity with smart LED and MS housing	No.	1			
15	MS stander 6mtr Pole with cantilever and anticorrosive paint, Foundation and transportation	Set	1			
16	MS stander 5mtr Pole with anticorrosive paint, Foundation and transportation	Set	1			
17	1Kva UPS with battery backup two hours for camera	Set	1			
18	2Kva UPS with battery backup two hours For signal	Set	1			
19	Optical Network Unit with 10/100/1000 copper port, 1 Gigabit OFC Port	No.	1			
20	Cat6 UTP Network Cable supply with Laying	Mtr	1			
21	2sqmm 3 Core power cable with supply with Laying	Mtr	1			
22	Chemical Earthing for Pole	No.	1			
23	SPD supply with installation	No.	1			
24	65 inch Commercial Display	No.	1			
25	Installation and commissioning of new system with Integration with existing system along with overall warranty of one year	Set	1			
TOTAL PRICE (Inclusive of all taxes)						

Note: Bidder need to submit financial bid and price breakup in this format.

Check List (Technical Bid)

Please check whether the following have been enclosed in the respective cover, namely, Technical Bid: (Please arrange the documents serially in the following Order

- | | | |
|---|---|--------|
| 1 | Form T1 (In Letter Head of the firm) | Yes/No |
| 2 | Form T2 | Yes/No |
| 3 | Copy of the company / Firm Registration Certificate | Yes/No |
| 4 | Copy of PAN | Yes/No |
| 5 | Copy of GST registration certificate | Yes/No |
| 6 | DD of Rs. 5,000 /- towards tender paper cost (non refundable) | Yes/No |
| 7 | Copy of Income Tax return for F.Y.2020 to 2025 | Yes/No |
| 8 | Company specification of the equipment's / instruments(make) | Yes/No |

Authorized Signatory [In full and initials] :

Name and Title of Signatory :

Name of firm:

(Company seal)

FORM –T 1

**(To be submitted with Technical Bid)
Technical Tender Submission Form**

To

The Executive Officer,
Balangir Municipality
Balangir -767001
Orissa

Dear Sir,

We, the undersigned offer to **“Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project”**. Balangir. We are hereby submitting our bid, which includes the Technical bid, and a Price bid sealed under a separate envelope.

We hereby declare that all the information and statements made in this bid are true and accept that any of our misrepresentations contained in it may lead to our disqualification. Our bid is valid for a period of one year after the date of bid opening, subject to the modification result from Contract negotiations you may subsequently carry out with us to accept our tender.

I/We do hereby declare I/We have not been de-recognized /black listed by any State Govt./Union Territory /Govt. of India /Govt. Organization for supply of not of Standard Quality (NSQ) items / Part-supply / non-supply.

I/We agree that the Tender inviting Authority can forfeit the Security Deposit and black list me/us if, any information furnished by us proved to be false at the time of inspection/Verification and not complying with the Tender terms & Conditions.

I/We further declare that I/We possess valid manufacturing license/ authorized distribution bearing no_____ Valid up to _____.If we are assigned the work during the period of validity of the bid, we undertake to carry out the same as per the terms and conditions of this tender document.

We have carefully gone through the Terms & conditions contained in the tender document and I declare that all the provisions of this tender document are acceptable to my company/firm.

I further certify that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours Truly,
Authorized Signatory [In full and initials] :
Name
and Title of Signatory :
Name of firm:
(Company seal)

FORM T2
(To be submitted with Technical Bids)
General information about Firm/Company

Sl. No	Particulars	Details to be furnished
Details of the Bidder(firm/company)		
1	Name	
2	Address	
3	Telephone Fax	
4	E-Mail	
Details of Authorized person		
5	Name	
6	Address	
7	Telephone Fax	
Details of local office address		
8	Contact Person	
9	Address	
10	Telephone Fax	
11	Functioning since when	
Information about the company		
12	Status of company(Public Ltd./Pvt.Ltd./Proprietor/Partnership)	
13	Details of Registration of Firm/Company (enclose the necessary documentary proff	Furnish the copy of the certificate of incorporation/Registration certificate with Year of Experience
14	Name & Address of Bankers with Full address & Telephone no.	
15	Furnish copy of work experience If any.	
16	Copy of Balance Sheet for 3 years to be enclosed	
17	Details of 1 project MIM VALUE Rs. 50.00 lakhs executed in The last 5years(Govt./Semi Govt./ Corporate)	
18	GST Registration No.	(Enclose the copy of the certificate)
19	Income tax Return	Enclose the copy of the IT return)
20	PAN	(Enclose the copy of the PAN)
21	Tender paper cost- Rs. 5000 /-	(mention the DD number)

Authorized Signatory [In full and initials]: Name

and Title of signatory :

Name of Firm :

(Company seal)

Check List (Financial Bid)

Please check whether the followings have been enclosed in the respective cover, namely, financial bid: (Please arrange the documents serially in the following order)

- | | |
|---|--------|
| 1. Form F1 (In letter Head of the Firm) | Yes/No |
| 2. Form F2 | Yes/No |

Authorized Signatory [In full and initials] :

Name and Title of signatory :

Name of Firm :

Address :

(Company seal)

FORM-F1

**(To be furnished in the Financial Bid)
FINANCIAL BID Submission Form
(On the letter head of the firm)**

To

The Executive Officer,
Balangir Municipality
Balangir -767001
Orissa

Ref:-Bid reference No.

Dear Sir,

We, the undersigned, offer **“Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project”**, Balangir in accordance with your tender referenced above and our Technical proposal.

Our proposal is valid for a period of one year after the date of Bid opening, subject to the modifications resulting from contract negotiations you may subsequently carry out with us to accept our tender. If we are assigned the work during the period of validity of the proposal, we undertake to carry out the same as per the terms and conditions of this tender document.

We understand you are not bound to accept any proposal you receive.

We remain,

Yours sincerely,

Authorized Signatory [In full and initials]

:

Name and Title of signatory

:

Name of Firm :

Address:

(Company seal)

Note:

1. The cable length per branch may vary from place to place. The bidder will pay the cost of cable based on actual consumption only at the rate finalized. Total No. of cameras will be as per physical survey layout. The system for entire town should provide a minimum of 30 days recording / Back-up facility. .
2. Installation, testing & commissioning of the total system. This work includes every work and materials related to the job. As this is a turnkey job, no extra payment shall be made on any account.

Authorized Signatory [In full and initials] :

Name and Title of signatory :

Name of Firm :

Address:

(Company seal)

BILL OF QUANTITIES – FINANCIAL BID FORMAT

FORM F2

(To be submitted with Price Bid)

Tender for “Installation of Additional Cameras and Traffic Signal System with O & M of CCTV Surveillance System under Safe City Project” at Balangir

Sl. No	Items	Unit	Qty	Unit Rate	GST	Total Price
1	4MP IP Bullet vari-focal with Facial Recognition Software, 7-35mm lens, 120db WDR, inbuilt mic with 256 micro SD (optional) for local storage in case of network with inbuilt analytic failure- Refer Technical	No.	1			
2	4MP IP Bullet vari-focal Bullet camera with 2.7-13mm lens, 120db WDR, inbuilt mic with 256 micro SD (optional) for local storage in case of network with inbuilt analytic failure- Refer Technical	No.	1			
3	ANPR System with required camera, IR and processing Unit/Server and license for one lane per location as per tender requirement	Set	1			
4	Video Recording Server cum NVR with Inbuilt and storage for 30 days.	Set	1			
5	Operator Workstation with Monitor, mouse and keyboard as per system requirement	Set	1			
6	8 port 10/100/1000mbps intelligent PoE manageable switch 1G 2no copper uplink	No	1			
7	Enclosure for outdoor UPS & Switch with proper cooling arrangement	Set	1			
8	6 core Armour OFC cable with Laying & Termination	Mtr	1			
9	Advance Traffic signal Controller fully automatic and Touch screen programmable panel with MS cabinet	Set	1			
10	1.5sqmm 12 core Armoured Copper cable supply with laying	Mtr	1			
11	1.5sqmm 6 core Armoured Copper cable supply with laying	Mtr	1			
12	32-40mm HDP Pipe with road cutting, Soil excavation, refilling and road cutting	Mtr	1			
13	12”(300mm diameter Traffic Signal aspect (Red/Amber/Green straight/Green right) in polycarbonate moulded compact smart LED retrofit kit, visibility distance minimum 500mtr	Set	1			

14	Count Down Timer 199 second display capacity with smart LED and MS housing	No.	1			
15	MS stander 6mtr Pole with cantilever and anticorrosive paint, Foundation and transportation	Set	1			
16	MS stander 5mtr Pole with anticorrosive paint, Foundation and transportation	Set	1			
17	1Kva UPS with battery backup two hours for camera	Set	1			
18	2Kva UPS with battery backup two hours For signal	Set	1			
19	Optical Network Unit with 10/100/1000 copper port, 1 Gigabit OFC Port	No.	1			
20	Cat6 UTP Network Cable supply with Laying	Mtr	1			
21	2sqmm 3 Core power cable with supply with Laying	Mtr	1			
22	Chemical Earthing for Pole	No.	1			
23	SPD supply with installation	No.	1			
24	65 inch Commercial Display	No.	1			
25	Installation and commissioning of new system with Integration with existing system along with overall warranty of one year	Set	1			
TOTAL PRICE (Inclusive of all taxes)						