

## INTER-UNIVERSITY ACCELERATOR CENTRE

(An Autonomous Centre of UGC) Aruna Asaf Ali Marg, New Delhi-110 067

#### NOTICE INVITING E-TENDER

TENDER NO: IUAC/NIT/13/KM/2019-20 Dated: 07/06/2019

#### **Instructions for Online Bid Submission:**

Inter-University Accelerator Centre (IUAC), invites online bids through e-Procurement Portal under two bid system, viz., Technical and Financial bids, from eligible and experienced parties for the work/supply of "SITC of CCTV Surviellance System at IUAC Campus, New Delhi".

Tender Documents may be downloaded from Central Public Procurement Portal <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> and <a href="http://ewww.iuac.res.in">www.iuac.res.in</a>.

Aspiring bidders who have not enrolled/registered in e-Procurement Portal should enroll/ register before participating through the website <a href="http://eprocure.gov.in/">http://eprocure.gov.in/</a> eprocure/app.

Bids shall be submitted online only at CPPP website: http://eprocure.gov.in/eprocure/app. Tenderers/Contractors are advised to follow the instructions provided in the e-procurement portal. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

IUAC reserves the right to accept / reject any/all tenders in part/full without assigning any reasons thereof. Bidder has to select the payment option as "offline" to pay the tender fee and EMD as applicable. The Tender Fee and Earnest Money Deposit shall be in the form of Demand Draft issued in favour of "Inter-University Accelerator Centre, New Delhi" and it should be deposited at IUAC before the bid opening. Bidders registered with MSME/NSIC are exempted from payments of EMD & tender fee. Copy of valid registration certificate should be uploaded.

Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled and submit it online without modifying the format. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

Any Corrigendum/Amendments in respect of above tender shall be issued on IUAC website **www.iuac.res.in** and website **https://eprocure.gov.in** only. Bidders should take into account any corrigendum published on the tender document before submitting their bids.

## E-TENDER DOCUMENT

Name of the work	SITC of CCTV Surviellance System at IUAC Campus, New Delhi.			
Tender Reference No.	IUAC/NIT/13/KM/2019-20			
Estimated Amount	Rs. 16.00 Lakhs			
Completion Time	2 Months			
Earnest Money	Rs. 32,000/- in the form of Demand Draft			
Tender Cost	Rs. 590/- in the form of Demand Draft			
Last Date and Time of Submission of Tender	July 04, 2019 at 3.00 p.m.			
Date & Time for opening of Tender (Techno-commercial bid – Part-A)	July 05, 2019 at 3.30 p.m.			
Date & time for opening of Price Bid (Part -B)	To be intimated later on to technically qualified bidders.			
Contact persons	M. B. Joseph Administrative Officer (S&P) E-Mail: joseph@iuac.res.in K. Murali E-Mail: kamudh@iuac.res.in Phone: 011-24126018 & 24126022			
Place of opening of the Tender	Committee Room (R. No. 222), Main Lab Building, IUAC			

For any clarification/amendment/corrigenda etc. to NIT before last date of submission of tender will only be available on website <a href="https://eprocure.gov.in">https://eprocure.gov.in</a> and <a href="www.iuac.res.in">www.iuac.res.in</a> Bidders are requested to keep visiting this website for all updates and in case of any correspondence for clarifications needed, they may contact Administrative Officer (S&P) e-mail: joseph@iuac.res.in

## **Part-I: GENERAL TERMS & CONDITIONS**

- 1. **Submission of Tender**: Tenders should be uploaded in two Parts i.e. "Technical Bid" (Part-A) and "Price Bid" (Part-B).
- 2. **Technical Bid (Part-A):** In this bid, the bidder shall uploaded the following:
  - a. Covering letter on Company letter head.
  - b. Copies of PAN Number, GST Registration Number
  - c. Copies of work orders and completion certificates of similar type of works executed successfully during the last 7 years as on 31st Dec 2018 in Govt., Public sector,

Autonomous body or reputed public ltd. company, with at least one work of value not less than Rs. 12.80 lakh or two similar works each of value not less than Rs. 8.0 lakhs or three similar works each of value not less than Rs. 6.40 lakh.

- d. Tender Acceptance Letter duly signed & stamped by the bidder.
- e. Detailed technical specifications/ leaflets of all the items of the system offered.
- g. Certificate/Undertaking of site visit.

(Note - All documents uploaded by the bidder should be self-attested along with stamp).

- 3. **Price Bid (Part-B):** In this bid, the bidder is required to quote his item rates in the Schedule of Rates in accordance with the scope of work, terms & conditions & technical specifications enclosed. The rates/price quoted by contractor should be all inclusive i.e. should include all material cost, labour, services, plant / machinery/tools & tackles, ladders & scaffolding required for execution of work, freight, Insurance (except CGST, SGST, IGST which are payable separately as quoted in price bid) and all applicable Govt. Duties, levies & taxes, transport/cartage of materials/labour and all other expenses not specifically mentioned but reasonably implied. Nothing over and above these rates shall be payable to contractor. Further nothing extra in rates will be considered for any variations in tender quantities or due to any site difficulties. It is mandatory for bidder to quote all items rate as asked for in the Schedule of Rates. Failure in not filling some item rates will lead to rejection of tender. The bidders should quote unconditional rates.
- 4. **Earnest Money Deposit**: An earnest money of **Rs.32,000**/-has to be deposited at IUAC before the tender opening date and time. The EMD shall be only in the form of Bank Draft in favor of **Inter-University Accelerator Centre**, payable at **New Delhi**. No Cheque/Cash shall be accepted as EMD. The refund of EMD to all other bidders except the lowest bidder shall be made within 15 days from the date of opening of price bid. The refund of EMD of the successful bidder shall be made after completion of works and acceptance of system by IUAC.
- 5. **Exemption from EMD:** Units registered with National Small Scale Industries Corporation (NSIC) are exempted from payment of EMD, subjected to:
- The unit being registered with NSIC for the items tendered.
- Self attested copy of valid NSIC registration Certificate is enclosed.
- Photocopy of application for registration at NSIC or for renewal of NSIC will not be acceptable. Such offers will be treated as offers received without EMD.
- 6. **Validity of Tender:** Tender shall be valid for our acceptance without any change in rates and NIT conditions for a period of 90 days from the date of opening of price bid.
- 7. **Escalation:** No escalation over and above items rates quoted by the bidder shall be paid during the execution of contract.
- 8. **Performance Bank Guarantee:** The successful bidder has to submit a performance bank guarantee of an amount equal to 5% of total contract value valid for 18 months within a period of 15 days from the date of issue of LOI, failing which LOI shall be deemed to be canceled and EMD of the bidder shall be forfeited.
- 9. <u>Completion time</u>: The time shall be the essence of this contract and entire work as detailed in scope of works is to be completed in all respect within a period of **60 days** from the date of issue of Purchae Order. Any delay in completing the work for reasons attributable to the Contractor is liable for liquidated damages as per clause 18 of NIT. However under the

force-majure conditions or delay due to reasons beyond control of the bidder, IUAC may grant suitable time extension for which the contractor has to request along with the justification/ reasons well in advance to the Director, IUAC for approval without any prejudice to price escalation. No time extension request shall be considered after the expiry of completion period of contract. The decision of the Director will be final and binding on the bidder/contractor.

- 10. **Scope of Work**: Detailed scope of work, terms and conditions, technical specifications, list of approved makes etc. are enclosed with this NIT as Part-II: Scope of Work Special Conditions & Technical Specifications.
- 11. **Deviations :** No deviation from the stipulated commercial terms and conditions will be allowed. Tenders should be unconditional.
- 12. **Site Conditions**: Bidder shall acquaint himself fully with the site conditions and the working environment of the IUAC before quoting his rates by visiting the site on any working day during normal office hours. The bidder shall also submit a Certificate/Undertaking as per attached format regarding the site visit. No compensation on account of any site difficulties will be entertained at a later date after award of works. Arrangement for site visit can be made by contacting at <a href="mailto:joseph@iuac.res.in">joseph@iuac.res.in</a> OR <a href="mailto:kamudh@iuac.res.in">kamudh@iuac.res.in</a> well in advance before the due date of submission of tender. No claim for extension of time shall be entertained in this regard.
- 13. **Correspondence**: All the correspondence in respect of tender/contractual obligation shall be made to A.O.(S&P), Inter-University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi-110067.
- 14. **Terms of Payment**: The payment shall be made on submission of the bills by the bidder and after due certification by the IUAC person responsible for supervision of the work in following manner:
  - i) 90% Payment will be released on delivery, installation, testing and commissioning of all parts of the CCTV System up to the satisfaction of IUAC Engineers.
  - ii) Balance 10% Payment will be released after installation, testing and commissioning and furnishing of an additional performance bank guarantee of an amount equal to 5% of final bill amount valid for the guarantee period.
- 15. **Guarantee/Defect liability period**: The bidder should guarantee for the works/items executed/supplied by him free from the manufacturing/engineering defects and bad material/workmanship for a period of **365 days** from the date of acceptance by IUAC. During this period if any replacement of items and/or repairs/rectification is needed, he shall replace or rectify the same free of cost.
- 16. **Labour Laws:** The bidder will abide by all the rules and regulations related to labour laws, accidents, Workman Compensation Act, workmen insurance, ESI, PF etc. This will be the sole responsibility of the bidder. IUAC will not be a party at any stage in any of the disputes relating to the above. In case any liability arises due to non-conformance of any issues by the bidder, under no circumstances IUAC will be liable for the same.
- 17. **Rules governing the bidder's manpower working in the IUAC premises:** The bidder's employees working inside the IUAC campus will abide by the instructions which is furnished to them by Engineer in-charge from time to time. Any damage to the IUAC property due to mishandling, carelessness on the contractor's or his workmen's part will be recoverable from the contractor's bills.
- 18. **Liquidated damages:** In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of liquidated damages @

- 1.0 % per week will be made subject to a maximum of 10% of the final bill/ contract value awarded by IUAC. However, in case the works are delayed beyond the scheduled completion/ contract period, IUAC reserves the right to get the work done by any other agency at the risk and cost of the bidder and amount to this affect will be deductible from bidder's bills/dues with an additional amount @ 15% as departmental charges.
- 19. **Quantity variation in ordered and executed quantity of works : IUAC** reserves the right to decrease the quantity of all / any item as per site requirement. However, any increase in quantity of any/all items as per site requirement up to 25% of ordered quantity the tenderer has to execute the same without any change in prices. Quantities in the tender are estimated quantities. Quantities required are to be assessed by the contractor after award of work and before procurement. Payment shall be made for the actual quantity used in the work.
- **20. Extra or substituted item:** If any extra or substituted item appears in the work, contractor shall submit its rate analysis supported with documents which shall be approved by IUAC. If required, IUAC can make its own analysis based on DSR document of CPWD or based on market rates for determining item rate and pay to contractor accordingly.
- 21. **Right of The Director IUAC:** The Director, IUAC reserves the right to accept or reject any tender without assigning any reason and does not bind himself to accept the lowest tender.
- 22. All the persons deployed by the contractor at IUAC site will have to carry valid gate passes, which will be issued after submission of their bio-data in desired format by the contractor. Any negligence/offense on their part will attract immediate removal of person(s) from site.
- 23. Watch and ward of all material shall be the sole responsibility of the contractor till the system is taken over by IUAC and pilferage etc. shall be entirely to his account.
- 24. All the employees of the contractor working at our site will have to be covered under insurance against any personal accident and IUAC will not be liable for payment of any compensation on that account.
- 25. The works shall be carried out as per the norms set by the manufacturer of respective equipment/material, specification and specific instructions as may be issued by the IUAC Engineer responsible for work from time to time.
- During execution of work the bidder should follow all standard norms of safety measures/precautions to avoid accident/damages to persons, machines and buildings. On non-adherence of this clause, suitable fines as decided by the Director IUAC shall be imposed.
- 27. Manpower deployed by the bidder at our site for carrying out contracted works is strictly prohibited being associated with any other works in the campus.
- 28. No material belonging to the bidder whether consumable or non-consumable should be brought inside the IUAC campus with out a valid Challan & proper entry at the IUAC main gate nor any material should be taken out without proper gate pass issued by the Centre
- 29. IUAC will provide free water and electricity during installation work at IUAC at one point. The contractor has to make his own arrangements for drawing power and water from that point as per his requirement.
- 30. Tenders once submitted will remain with the Centre and will never be returned to the bidders.
- **31.** Corrections in the Tender: All figures shall be clearly and legibly written in the tender and with the same pen and ink. Erasing and overwriting is not allowed.

- **32. Tender submission by a firm:** In the event of tender being submitted by a firm or company (i.e. not by an individual), it must be signed by an authorized signatory.
- **32. All Rates to be filled:** Bidder shall fill rates of all the items and no item should be left blank. Failure to fill rates of some items may lead to rejection of tender and it will be assumed that contractor is not interested to do these works.
- 33. <u>Termination of Contract</u>: The Director, IUAC reserve the right to terminate the contract on account of poor workmen ship, failure to start the work within 30 days, non-compliance of set norms/ specifications for the works, delay in progress of work, violation of any contract provisions by the bidder. The contract can also be terminated at the request of the bidder within 10 days from the date of LOI/ purchase order. In such case the EMD of the bidder will be forfeited. If the contractor requests the termination of contract any time after submission of performance bank guarantee, the Performance Bank Guarantee shall be en-cashed along with forfeiture of EMD.
- 34. Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi/Delhi.

Accepted

(Signature of bidder)

## Part-II: Scope of Work, General Conditions & Technical Specifications

## 1. Scope of Work

The general scope under this contract includes supply, unloading, shifting, installation, testing & commissioning of CCTV Surviellance system at IUAC, New Delhi on Turn-key basis. The scope of work under this bid broadly includes the following:

- 1.1) Finalization of camera, NVR locations and cable routing as per requirement, preparation of design and working drawings in consultation with IUAC Engineers.
- 1.2) Supply of CCTV cameras, NVR's, monitors, wires, cables, racks, power supplies, junction boxes etc as per schedule of prices complete as per specifications from approved manufacturers.
- 1.3) Installation, testing & commissioning of CCTV surviellance system items including all inter connections, wiring, earthing etc as required.
- 1.4) Configuration & providing all required software, drivers, inter connections, cables, connectors etc for monitoring all NVR's & cameras including playback on IUAC's internal network computers through LAN as required.
- 1.5) Training of IUAC personnel for operation of CCTV system.
- 1.6) Preparation of as-built drawings of installed system. Atleast three paper copies of as-built drawings and all manuals are to be submitted by the bidder along with soft copies of all drawings & manuals.
- 1.7) In addition to above the bidder has to do all minor sundry works including supply and fixing of assemblies, accessories, junction boxes, hardware items, foundation bolts, termination lugs for electrical connections as required and all other sundry items which are useful and necessary for proper assembly and efficient working of various components of the system whether or not such details are indicated in the schedule of prices. Nothing extra shall be paid on this account. Such works shall be deemed to have been included in the bidder's offer.

## 2. Technical Specifications

#### 2.1 CCTV Network Dome Camera

The CCTV Network Dome Camera shall be of minimum following specifications:

2.0 megapixel (1920x1080) high resolution, 25 fps IP fixed, true day/night, Vari-focal 2.8-12 mm, inbuilt IR up to 30 mtrs with IR cut filter with auto switch, IP 65 protection, video compression H.265, 3D digital noise reduction, DC12V, ONVIF standard with all accessories like tamper proof screws, holding bracket for wall mounting, clamps, wiring etc. complete as required.

#### 2.2 CCTV Network Bullet Camera

The CCTV Network Bullet Camera shall be of minimum following specifications:

2.0 megapixel (1920x1080) high resolution, 25 fps IP fixed, true day/night, Vari-focal 2.8-12 mm, inbuilt IR up to 30 mtrs with IR cut filter with auto switch, IP 66 protection, video compression H.265, 3D digital noise reduction, DC12V, ONVIF standard with all accessories like tamper

proof screws, outdoor housing, holding bracket for wall mounting, clamps, wiring etc. complete as required.

#### 2.3 Network Video Recorder

The Network Video recorder shall be of All-in-one recording, dual stream, e-signature, electronica Image stabilization, de-fog, viewing, virtual disk quota management, and management solution for network surveillance systems of up to 16 channels, HDMI Output(1080p), RAID 6/10 controller, surveillance systems of up to 16 channels (all channels pre-licensed), 2 x HDD (2x 6 TB) max, 2 nos e-SATA for backup, Operating Temperature -10 °C to +55 °C, NVR shall have Video Motion Detection (VMD) facility for individual camera, sufficient video recording capacity & complete with all licensed software & hardware as required.

#### 2.3 Monitors

The monitors shall be LED type flat screen 21" diagnoal & 32" diagonal suitable for continous operation. These shall be compatible to the above NVR's.

### 3. Guarantee/ Warrantee

The bidder/ manufacturer shall warrant the entire CCTV Surviellance System & all other associated material to be free from faults and defects in materials and workmanship for a period of 365 days from the date of handing over the system to IUAC.

All Original Warrantty certificates from respective manufacturer's should be sybmitted to IUAC.

## 4. Testing & Certification

- 4.1 All original factory test certificates shall be supplied along with the supply of materials from respective manufacturers.
- 4.2 All components, sub-assemblies and system test parameters shall be verified on site to ensure they meet the specifications.

## 5. Safety Measures:

The bidder shall take entire responsibility for electrical safety of the installation(s) and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

## 6. Quantities:

The quantities mentioned in Schedule of Rates are tentative. The successful bidder has to take the measurements at site and get approval from the Engineer in-charge of required quantities before supplying at site. In case the bidder supplies the items without above approval from Engineer in-charge, the left out items shall not be paid and the bidder has to remove them from site.

Quantities of various tendered items can also be increased or decreased as per site requirement. The bidder has to abide by the change in quantities as decided by IUAC without having any claim on the rates of various items. The rates quoted by the bidder can not be altered due to any change in ordered quantities.

## 7. Drawings & Manuals

Two sets of engineering/ electrical / layout drawing including installation and O&M manuals are to be supplied. Bidders shall provide complete technical data sheets for each equipment giving details of all the specifications etc. After completion of works the bidder has to submit two copies of all as-built drawings and layout of cables as laid including soft copies etc as required by engineer in-charge.

## 8. Comprehensive AMC of CCTV Surviellance System

The bidder has to offer comprehensive AMC of CCTV Surviellance system after the expiry of warranty period for atleast 5 years. The payment for AMC shall be made separately as per rates quoted in Item No-13 of Schedule of Rates. The payment for the AMC shall be made on yearly basis in last month of each year of AMC.

The AMC services will be comprehensive in nature and will include cost of replacement & services of all components of system like cameras, NVR's, LED monitors, power supplies connectore, cables etc as and when required.

The service personnel shall rectify the complaints received from the IUAC on the same day. If necessary they will be required to stay back after office hours and even on holiday too to attend to any ermergency work. The DOWN TIME/REPAIR of the CCTV system in any case should not exceed 02 working days or 48 hours, whichever is earlier. The problem/defects must be rectified within the stipulated time.

The new replaced parts will became the property of the IUAC and only faulty parts may be given to the bidder. In case of replacement, the bidder has to supply new equipment/parts of same make or equivalent standard as approved by Engineer In-charge.

The scope of work of AMC shall be as follows.

#### **8.1 Preventive Maintenance:**

The company Engineer/Service Person shall have to visit & carryout at least one preventive maintenance once in a month for precautionary examination of CCTV system during the AMC period on working days and shall do the following works:

Checking for normal working, recording & play back, cleaning of cameras, NVR's, filters and monitors. Checking fitment of internal and external hardware and heating of the system, Checking of input / output voltage of power supplies etc.

#### 8.2 Breakdown Maintenance:

In case of need / problem / defects in the CCTV system the service engineer shall have to visit the IUAC site on call basis as and when required and repair any faults & failures in EQUIPMENT under this contract during all week days, weekends and holidays.

## 9. List of Approved Makes

The bidder has to quote and offer the items from the following approved makes only.

- 1. CCTV Camera: Sony, Honneywell, Pelco, Hikvision, Panasonic
- 2. Network Video Recorder: Sony, Honneywell, Pelco, Hikvision, Panasonic
- 3. Network switches: D-link, HPE, Cisco, Zyxel, TP-Link
- 4. Jack Panel: Molex, D-link, Krone, AMP
- 5. Cables, wires: POLYCAB, LAPP, FINOLEX, KEI, D-link, Belden
- 6. Glands, Thimbles: DOWELLS, ASIAN, 3M
- 7. Junction boxes: HAGGER, HENSEL, PARKER
- 8. **Monitors:** Samsung, Panasonic, LG, equivalent
- 9. 19" Racks: Valrack, Netrack, APW President, D-Link

This certificate shall be furnished duly signed & stamped with Techno-commercial Bid.

# **Certificate/ Undertaking**

This is to certify that we have visited the site for SITC of CCTV Surviellance system in IUAC
lab complex on and assessed the actual situation & nature of site. We have also
assessed the amount of work involved at site for tendered work before submitting our offer. We
will be able to complete the above work within stipulated time as per site condition.
We further undertake that no extra cost will be claimed by us later-on for any difficulties
modifications involved during the execution of tendered works. We understand that work is to be
executed in an already operational/ functional institute.
(Signature & Seal of Bidder

Name:....

## TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:
To The Administrative Officer (S&P) Inter-University Accelerator Centre Aruna Asaf Ali Marg New Delhi-110 067.
Sub: Acceptance of Terms & Conditions of Tender.
Tender Reference No:
Name of Tender / Work:
Dear Sir,
1. We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:
as per your advertisement, given in the above mentioned website(s).
2. We hereby certify that we have read the entire terms and conditions of the tender documents from Page No to (including all documents like annexure(s), schedule(s), etc .,), which form part of the contract agreement and we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
4. We hereby unconditionally accept the tender conditions of above mentioned tender document(s) $/$ corrigendum(s) in its totality $/$ entirety.
5. We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/ Public sector undertaking.
6. We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.
Yours Faithfully,
(Signature of the Bidder, with Official Seal)

BOQ/Price Bid - Part B
(Prices should be quoted only in the Standard BOQ .XLS format)

## SITC of CCTV Surviellance System at IUAC Campus, New Delhi.

Item No.	Description of Work	Apprx. Qty.	
1	Supply, Installation, Testing & Commissioning of Network Dome Camera 2.0 megapixel (1920x1080) high resolution, 25 fps IP fixed, true day/night, Vari-focal 2.8-12 mm, inbuilt IR up to 30 mtrs with IR cut filter with auto switch, IP 65 protection, video compression H.265, 3D digital noise reduction, DC12V, ONVIF standard with all accessories like tamper proof screws, holding bracket for wall mounting, clamps, wiring etc. complete as required.	45 Nos.	
2	Supply, Installation, Testing & Commissioning of Network Bullet Camera 2.0 megapixel (1920x1080) high resolution, 25 fps IP fixed, true day/night, Vari-focal 2.8-12 mm, inbuilt IR up to 30 mtrs with IR cut filter with auto switch, IP 65 protection, video compression H.265, 3D digital noise reduction, DC12V, ONVIF standard with all accessories like tamper proof screws, outdoor housing, holding bracket for wall mounting, clamps, wiring etc. complete as required.	12 Nos.	
3	Supply, installation, testing & commissioning of Network Video Recorder (NVR) all-in-one recording, dual stream, e-signature, electronic image stabilization, de-fog, viewing, virtual disk quota management, and management solution for network surveillance systems of up to 16 channels, HDMI output (1080p), RAID 6/10 controller, 2 x 6 TB HDD e-SATA for back-up complete with all licensed software etc as per specifications as required.	4 Nos.	
4	Supply, Installation, Testing & Commissioning of SMPS Power Supply with MDF junction box suitable for outdoor/indoor for cameras complete as required.	57 Nos.	
5	Supply, installation, testing & commissioning of 21" Flat LED Color Monitors etc complete as required.	4 Nos.	
6	Supply, installation, testing & commissioning of 32" Flat LED Color Monitors etc with wall mount bracket complete as required.	2 Nos.	
7	Supply, installation, testing & commissioning of 16 port network gigabit switches etc complete as required.	4 Nos.	
8	Supply, installation, testing & commissioning of 19 inck rack mount console unit - 6 U with suitable power distribution unit, Jack panel, cable manager etc complete as required.	4 Nos.	
9	Supply, installation & testing of CAT-6 Patch Cord 1 mtr etc complete as required.	60 Nos.	
10	Supply, installation & testing of CAT-6 Patch Cable 5-10 mtr with connectors etc complete as required.	6 Nos.	
11	Supply, installation & testing of CAT-6 PVC Travelling cable 4X4X2XAWG 26 suitable for Lift Car use complete as required.	55 Mtrs.	
12	Supply, laying & testing of Cat 6 UTP ARMOURED cable with all	2000	

	termination boxes, crimping etc complete as required.	Mtrs.	
13	Supply, laying, fixing on wall/ cable trays & testing of 3C x 1.0 sqmm	1500	
	ARMOURED copper conductor power cable for powering the cameras and	Mtrs.	
	switches etc complete as required.		
14	Supply & installation of illumination type notice showing "You are Under	50 Nos.	
	CCTV Surviellance" of approximate size 200x150 mm as required.		
15	Taxes/GST for the supply and installation	1 No.	
16	Comprehensive AMC charges for above CCTV Surviellance system after		
	expiry of warranty period as per scope of works for comprehensive AMC.		
16.1	1 <sup>st</sup> Year AMC Charges	1 Set	
16.2	2 <sup>nd</sup> Year AMC Charges	1 Set	
162	ard XV ADAGO CI	1.0	
16.3	3 <sup>rd</sup> Year AMC Charges	1 Set	
16.4	4 <sup>th</sup> Year AMC Charges	1 Set	
10.4	4 Teal Aivic Charges	1 500	
16.5	5 <sup>th</sup> Year AMC Charges	1 Set	
10.0		1 ~ • •	
17	Applicable GST for above AMCs.		
	Total		
	1 Utai		