



# NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 15

Web: [www.nitt.edu](http://www.nitt.edu)

Phone: 0431-2503901

## e-Procurement Notice

E-Tender ID: 2019\_NITT\_436420\_1

Ref: NITT/F.NO.017/CAP.EXP.35/18-19/DID Dated: 29.01.2019

Online tenders are hereby invited in two stage bidding from reputed manufacturer /authorized representative of a manufacturer/whole sale dealer/importer for Supply, Installation, Testing, Commissioning of IP based CCTV Camera, Setting up of CCTV Control Room and Surveillance system in the entire campus of NIT,Tiruchirappalli for the Security Office, National Institute of Technology.

Bidders can download complete set of bidding documents from e- procurement Platform <http://eprocure.gov.in/eprocure/app> from 29.01.2019(03.00PM) onwards.

### The bidding process is in two stages:

- 1) Technical Bids submission after site-surveying the Project site (i.e. NIT, Tiruchirappalli) by the Bidders.
- 2) Demonstration and Presentation by the Technically qualified bidders as notified by NITT.
- 3) Price Bids submission by the Technically qualified bidders as notified by NITT.

Bidders need to submit the bids online for the interested stated items by uploading all the required documents through <http://eprocure.gov.in/eprocure/app>.

Last Date/ Time for receipt of bids through e-procurement is: 06.03.2019(11.00AM) (Server time).

Late bids shall not be accepted.

For further details regarding Tender Notification & Specifications please visit website:

<http://eprocure.gov.in/eprocure/app> and [www.nitt.edu](http://www.nitt.edu)

### CRITICAL DATE SHEET

Published Date Date of Notification	29.01.2019(03.00PM)
Bid Document Download Start Date	29.01.2019(03.00PM)
Sought of Clarification Start Date	11.02.2019(09.00AM)
Sought of Clarification End Date	14.02.2019(06.00PM)
<b>Technical feasibility and survey of the CCTV coverage area at NITT</b>	
Bidders Survey (site) Visit start date	From 11.02.2019 to 14.02.2019 on workings days between 10.00 a.m. to 6.00 p.m.
Bidders Survey (site) Visit end date	[please refer the details under the Part 2 Section VI sl. no.1 Scope Of Work ..... A2 Site Visit & sl. no.9 Site inspection]
Pre bid meeting Venue of Pre-bid Meeting	15.02.2019(03.00 PM) Administrative Office, NIT Tiruchirappalli
Bid Submission (Technical) Start Date	16.02.2019(11.00 AM)
Bid Submission (Technical) End Date	06.03.2019(11.00AM)

<b>Technical Bid Opening Date</b>	<b>07.03.2019(11.00AM)</b>
<b>Technical Presentation &amp; Demonstration by the Technically Qualified bidders</b>	Will be announced after technical evaluation <b>(Second or third week of March 2019)</b>
<b>Price Bid Submission Start Date by the bidders, who have passed in the Technical Presentation &amp; Demonstration</b>	Will be announced after the completion of the <b>Technical presentation &amp; demonstration by the technically qualified bidders</b>
<b>Price Bid Submission End Date by the bidders, who have passed in the Technical Presentation &amp; Demonstration</b>	
<b>Price Bid Opening Date</b>	

NIT, Tiruchirappalli

# NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 15

Security Office, National Institute of Technology

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## Tender Document (e - Procurement)

Tender Notification No	:	<b>NITT/F.NO.017/CAP.EXP.35/18-19/DID</b>
Date	:	<b>29.01.2019</b>
Name of the Department	:	<b>Security Office, National Institute of Technology, Tiruchirappalli.</b>
Name of the component	:	<b>Supply, Installation, Testing, Commissioning of IP based CCTV Camera, Setup of CCTV Control Room and Surveillance system in the entire campus of NIT, Tiruchirappalli</b>
Quantity required	:	<b>As per the Technical Specification under Section VI – Scope of Work and Technical Specification</b>
EMD Amount	:	<b>Rs.2,00,000/- (Rupees two lakhs only)</b>
Last Date & Time of submission of <b>Technical Bid</b>	:	<b>06.03.2019 (11.00AM)</b>
Address for the submission of Tender	:	<b>THE DIRECTOR, NIT TIRUCHIRAPPALLI - 15 KIND ATTENTION TO: Security Officer, Security Office, National Institute of Technology</b>
Date & Time of opening of technical bid	:	<b>07.03.2019(11.00AM)</b>

## Checklist for Bid / Tender Submission

(The following check-list must be filled in and submitted with the bid documents)

### A. GENERAL

Sl. #	Particulars	Yes / No
1.	Scanned copy of Bid Security (DD/Bank Gaurantee/Exemption Certificate)	
2.	Tenderform (Techno-Commercial Unpriced Bid)	
3.	Tender Acceptance Letter	
4.	GST Registration Certificate & PAN Card	
5.	Experience (Previous Orders/Satisfactory Completion certificate)	
6.	Affidavit for Not Blacklisted by Any Govt Organization	
7.	EMD Returning Form	
8.	Mandate Form For Electronic Fund Transfer/RTGS Transfer	
9.	Have you attached the techno commercial unpriced bid form duly filled in appropriately?	
10.	Have you attached a copy of the last three years audited balance sheet of your firm	
11.	Have you attached the details of the income tax return certificate, proof of manufacturing unit/ dealership letter/ general order suppliers and copy of Central / State sales tax registration certificate?	
12.	Have you attached the copies of relevant work orders from Govt. Depts. / PSUs and Central Autonomous Bodies?	
13.	Have you submitted samples of all items indicated in the respective schedule of requirements at the address of tender inviting authority within due date.(if applicable as mentioned in the specification and requirements)	
14.	Have you enclosed the schedule of requirement indicating the make offered without indicating the pricing components along with the techno commercial unpricedbid?	
15.	Have you submitted the techno commercial unpriced ?	
16.	Have you enclosed the statement of deviations from financial terms and conditions, if any?	

### B. THIS TENDER SPECIFIC

The following documents are to be scanned and uploaded as part of the Technical Bid as per the tender document:		
a	Scanned copy of written confirmation authorizing the signatory of the Bid to commit the Bidder;	
b	Scanned copy of documentary evidence establishing the Bidder's qualifications to perform the contract if its bid is accepted and the Bidder's eligibility to bid;	
C	Scanned copy of <ol style="list-style-type: none"> <li>i. Documentary evidence, that the Goods and Related Services to be supplied by the Bidder are of eligible origin and</li> <li>ii. Conform to the Bidding Documents, and</li> <li>iii. any other document required in the BDS;</li> </ol>	
d	Scanned copy of the following documents mentioned in various sections. Section-VI <b>The documents mentioned in the Section VI under the following parts</b>	
1.	SCOPE OF WORK OF CCTV SURVEILLEINCE SYSTEM <ol style="list-style-type: none"> <li>A. Overview of work</li> </ol>	

	<ul style="list-style-type: none"> <li>A1. Bidding</li> <li>A2. Site Visit</li> <li>A3. Pre-Qualification</li> <li><b>B. Detailed scope of work for bidder</b> <ul style="list-style-type: none"> <li>B1. Overview and Ensuring Solution of CCTV Surveillance System</li> <li>B2. Helpdesk Services</li> <li>B3. SLA reporting</li> <li>B4. Service Call Log</li> <li>B5. Training and Documentation</li> <li>B6. Comprehensive Warranty <ul style="list-style-type: none"> <li>B6.1 Scope of Comprehensive Annual Maintenance Services</li> <li>B6.2 Preventive Maintenance Services</li> <li>B6.3 On Call Services</li> </ul> </li> </ul> </li> <li><b>C. Scope of work - NIT, Tiruchirappalli</b></li> </ul>		
2.	List of Goods and Delivery Schedule		
3.	List of Related Services and Completion Schedule		
4.	<ul style="list-style-type: none"> <li>Technical Specifications <ul style="list-style-type: none"> <li>A. Requirement of Various Items</li> <li>B. Required Items Detailed Specifications</li> <li>C. Guaranteed Technical Specifications (the Bidder should fill-in and upload the documents)</li> </ul> </li> </ul>		
5.	Terms & Conditions for the scope of work & CCTV Surveillenince System		
6.	Terms of Payment		
7.	Handing over of system for maintenance contract services		
8.	List of Approved Make		
9.	<ul style="list-style-type: none"> <li>Site Inspection <ul style="list-style-type: none"> <li>A. For TPDemonstration</li> <li>B. For Site Visit and Surveying Request from the Bidders</li> <li>C. TPC Demonstartion Equipment as per bid proposal</li> </ul> </li> </ul>		

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	List of Goods and Delivery Schedule
	List of Related Services and Completion Schedule
	<p>Technical Specifications</p> <p style="padding-left: 40px;">A. Requirement of Various Items</p> <p style="padding-left: 40px;">B. Detailed Specifications of required items</p> <p style="padding-left: 40px;">C. Guaranteed Technical Specifications (the Bidder should fill-in and upload the documents)</p>
	Terms & Conditions for the scope of work
	Terms of Payment
	Handing over of system for maintenance contract services
	List of Approved Make
	<p>Site Inspection</p> <p style="padding-left: 40px;">A. For TPDemonstration:</p> <p style="padding-left: 40px;">B. For Site Visit and Surveying Request from the Bidders</p> <p style="padding-left: 40px;">C. TPC Demonstartion Equipment as per bid proposal</p>
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# **Part - 1 Bidding Procedures**

NIT, Tiruchirappalli

## Section I: Instructions for Online Bid Submission

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>.

1. Possession of valid Digital Signature Certificate (DSC) and enrollment / registration of the contractors / bidders on the e-Procurement/e-tender portal are prerequisite for e-tendering.
2. Bidder should register for the enrollment in the e-Procurement site using the “Online Bidder Enrollment” option available on the home page. Portal enrollment is generally free of charge. During enrollment / registration, the bidders should provide only valid and true information including valid E-mail ID. All the correspondence shall be made directly with the contractors/bidders through E-mail ID as registered.
3. Bidder need to login to the site through their user ID / password chosen during enrollment / registration.
4. Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY / TCS / nCode / eMudra or any other Certifying Authority recognized by Controller of Certifying Authorities (CCA) India on eToken / SmartCard, should be registered.
5. The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
6. Contractor / Bidder may go through the tenders published on the site and download the tender documents / schedules for the tenders.
7. After downloading / getting the tender document/schedules, the Bidder should go through them carefully and submit the documents as required, otherwise bid will be rejected.
8. Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
9. Bidder may log in to the site through the secured login by the user ID / password chosen during enrolment / registration and by submitting the password of the e-Token / Smartcard to access DSC.
10. Bidder may select the tender in which he / she is interested in by using the search option and then move it to the ‘my tenders’ folder.
11. From my tender folder, he / she may select the tender to view all the details uploaded there.
12. It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
13. Bidder, in advance, should get read the bid documents to be submitted as indicated in the tender document / schedule and ordinarily it shall be in PDF /xls / rar / jpg / dwf formats. If there is more than one document, all may be clubbed together and provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip / rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be veryfast.
14. The Bidders can update well in advance, the documents such as certificates, annual report details, etc., under “My Space option” and these can be selected as per tender requirements

and send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.

15. Bidder should submit the Tender Fee / EMD as specified in the tender. The hard copy should be posted / couriered / given in person to the Tender Inviting Authority, within bid submission due date and time as indicated in the tender. Scanned copy of the instrument should be uploaded as part of the offer.
16. The bidder has to select the payment option as offline to pay the Tender FEE / EMD as applicable and enter details of the instruments.
17. The details of the DD / any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable and liable for rejection.
18. While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
19. The bidder has to digitally sign and upload the required bid documents one by one as indicated. Every act of using DSC for downloading the bids and uploading their offers shall be deemed to be the confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception and reservation.
20. The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.

#### **PRICE BID**

21. If the price bid format is provided in a spread sheet file like BoQ\_XXXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid / BOQ template shall not be modified / replaced by the bidder ; else the bid submitted is liable to be rejected for the tender.
22. The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
23. The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening, etc., in the e-Tender system. The bidders should follow such time during bid submission.

#### **EVIDENCE FOR ONLINE BID SUBMISSION**

24. After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and it can be also be used as a entry pass to participate in the successive procedures bid opening.
25. All the data being entered by the bidders would be encrypted by using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
26. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric

encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

27. The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
28. The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.
29. For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone : **1-800-233-7315, 0120-4001005** or send an E-mail to [cppp-nic@nic.in](mailto:cppp-nic@nic.in).

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NIT, Tiruchirappalli

## Section II : Instructions to Bidders

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## Section II. Instructions to Bidders

<b>A.General</b>	
<b>1</b>	<b>SCOPE OF BID</b>
	<p>Supply, Installation, Testing, Commissioning of IP based CCTV Camera, setup of CCTV Control Room and Surveillance system in the entire campus of NIT, Tiruchirappalli as per the stated specifications. Through out these Bidding Documents unless the context otherwise requires: “</p> <p>a. ‘in writing ’ means communicated in written form (e.g. by mail, e-mail, fax, telex) with proof of receipt;</p> <p>b. “ Institution means National Institute of Technology, Tiruchirappalli’</p>
<b>2</b>	<b>ELIGIBLE BIDDERS</b>
2.1	A Bidder may be a firm, a company, a Limited Liability Partnership (LLP), a government-owned entity or any combination of such entities in the form of a Joint Venture (JV) under an existing agreement.
2.2	In the case of a joint venture, all members shall be jointly and severally liable for the execution of the contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and during the contract execution in the event the JV is awarded the contract.
2.3	A Bidder shall not have any conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
a	directly or indirectly controls, is controlled by or is under common control with another Bidder; or
b	receives or has received any direct or indirect subsidy from another Bidder; or
c	has the same legal representative as another Bidder; or
d	has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
e	Participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid shall result in the disqualification of all Bids in which such Bidder is involved. This, however does not limit the inclusion of the same subcontractor in more than one bid; or
f	Has a close business or family relationship with a professional staff of the Purchaser (or of the project implementing agency, or of a recipient of a part of the loan) who: <p>(i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid evaluation process of such contract; or</p> <p>(ii) would be involved in the implementation or supervision of such contract.</p>
2.4	A foreign firm and individual may be ineligible if as a matter of law or regulations, India prohibits commercial relations with the country of bidder.
2.5	A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.
<b>3</b>	<b>CONTENTS OF BIDDING DOCUMENT</b>
3.1	The Bidding Documents consist of Parts 1, 2, 3 and 4, which include all the Sections indicated below, and should be read in conjunction with any Addenda if any, issued.

	3.2	The Invitation for Bids issued by the Purchaser is not part of the Bidding Document.
	3.3	Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-bid meeting (if any), or Addenda to the Bidding Document. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.
	3.4	The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as required by the Bidding Documents.
<b>4</b>	<b>CLARIFICATION OF BIDDING DOCUMENTS, SITE VISIT, PRE-BID MEETING</b>	
	4.1	A Bidder, who requires any clarification of the Bidding Document shall contact the Purchaser in writing at the Purchaser's address specified in the BDS or raise its enquiries during the pre-bid meeting if provided. The Purchaser will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids within a period specified in the BDS.
	4.2	The Bidder is advised to visit and examine the project site and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for procurement of Goods. The costs of visiting shall be at the Bidder's own expense and risk.
	4.3	The Bidder's designated representative is invited to attend a pre-bid meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
	4.4	The Bidder is advised to submit any questions in writing to reach the Purchaser not beyond one week preceding the meeting.
	4.5	Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Purchaser exclusively through the issue of an addendum and not through the minutes of the pre-bid meeting. Absence in the pre-bid meeting shall not be a cause for disqualification of a Bidder.
<b>5</b>	<b>Amendment of Bidding Document</b>	
	5.1	At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by corrigendum. In case of e-procurement, corrigendum / amendment shall be published on <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> .
	5.2	Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser. The Purchaser shall also promptly publish the addendum on the Purchaser's webpage.
	5.3	The Purchaser may, at its discretion to give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, extend the deadline for the submission of bids.
<b>C. PREPARATION OF BIDS</b>		
<b>6</b>	<b>LANGUAGE OF BID :</b>	
	The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the language specified in the Bid Data Sheet (BDS). Supporting	

	documents and printed literature that are part of the Bid may be in other /another languages provided they are accompanied by an accurate translation of the relevant passages into the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.
<b>7</b>	<b>Documents Comprising the Bid</b> The tender/Bid shall be submitted online in two part, viz., Technical Bid and Commercial Bid.
7.1	<b>TECHNICAL BID</b> The following documents are to be scanned and uploaded as part of the Technical Bid as per the tender document:
a	Scanned copy of Tender Forms (Techno Commercial Un-Priced Bid) and Tender Acceptance Letter,);
b	Scanned copy of the completed Schedules
c	Scanned copy of Bid Security or copy of proof for submission of Tender Document Fee/ Earnest Money Deposit etc.;
d	Scanned copy of written confirmation authorizing the signatory of the Bid to commit the Bidder;
e	Scanned copy of documentary evidence establishing the Bidder's qualifications to perform the contract if its bid is accepted and the Bidder's eligibility to bid;
f	Scanned copy of iv. Documentary evidence, that the Goods and Related Services to be supplied by the Bidder are of eligible origin and v. Conform to the Bidding Documents, and vi. any other document required in the BDS;
g	Scanned copy of Pre-Qualification Details as per Section-IV like PAN/GST etc.
h	EMD Returning Form.
i	Mandate Form For Electronic Fund Transfer/RTGS Transfer.
j	Technical Bid. All the original documents as well as the original payment instrument like Demand Draft/Bank Guarantee /Pay order or banker cheque of any scheduled bank against EMD, samples as specified in this tender document have to be sent to the address of the Purchaser mentioned in Bid Data Sheet (BDS) by speed post/courier/by hand on or before bid Submission closing date & time. Beyond that the tender shall be summarily rejected without assigning any reason.
7.2	<b>COMMERCIAL BID</b> The commercial bid comprises of: i. Scanned copy of Tender Form (Price Bid) ii. Price BID in the form of BoQ_XXXXX.xls. iii. Scanned copy of item wise break up of price bid. The Price bid format is provided a BoQ_XXXXX.xls along with this Tender Document at <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> . Bidders are advised to download this BoQ_ XXXXX.xls and quote their offer/rates in the prescribed column. Bidders can quote Basic Price in INR or CURRENCY (for other than INR) but it is mandatory to quote taxes/levies in INR only, in the prescribed column and upload the same in the commercial bid.
7.3	The Bidder shall furnish in the Tender Forms information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

8		<p><b>Tender Forms (Technical and Price) and Price Schedule(BOQ)</b> Tender Forms and Price Schedules (Bill of Quantity-BOQ) shall be prepared using the relevant forms furnished in Section IX, Bidding Forms and BOQ provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.</p>
9		<p><b>Alternative Bids</b> Unless otherwise specified in the BDS, alternative bids shall not be considered</p>
10	10.1	<p><b>Bid Prices and Discounts</b> The prices and discounts quoted by the Bidder in the Tender Forms and in the Price Schedules (BOQ) shall conform to the requirements specified as under.</p>
	a	All lots (contracts) and items must be listed and priced separately in the Price Schedules (BOQ).
	b	The price to be quoted in the Tender Forms shall be the total price of the bid, excluding any discounts offered.
	c	The Bidder shall quote any discount and indicate the methodology for their application in the Tender Forms.
	d	Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS A bid submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.
	10.2	Bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified in the BDS, prices quoted shall correspond to 100% of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer discounts for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted provided the bids for all lots (contracts) are opened at the same time.
	10.3	Prices shall be quoted as specified in each Price Schedule (BOQ) as provided. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible country. Prices shall be entered in the following manner:
	a	<p>For Goods manufactured in India:</p> <ol style="list-style-type: none"> <li>1. GST payable on the Goods, if the contract is awarded to the Bidder ; and</li> <li>2. The price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS ;</li> </ol>
	b	<p>For Goods manufactured outside India, to be imported</p> <ol style="list-style-type: none"> <li>1. The price of the Goods quoted under Carriage and Insurance Paid (CIP) Model up to named place of destination in India as specified in the BDS ;</li> <li>2. The price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS;</li> </ol>

		c	For Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements: 1. The price of each item comprising the Related Services (inclusive of any applicable taxes)
<b>11</b>		<b>Currencies of Bid and Payment:</b> The currency(ies) of the bid and the currency(ies) of payments shall be as specified in the BDS. The Bidder shall quote in Indian Rupees.	
<b>12</b>	12.1	<b>Documents Establishing the Eligibility and Qualifications of the Bidder</b> To establish Bidder's their eligibility, Bidders shall complete the Tender Form (Techno Commercial Un-Priced Bid & Priced Bid), included in Section-IX, Bidding Forms.	
	12.2	The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:	
		a	that, if required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IX, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in India;
		b	that, if required in the BDS, in case of a Bidder not doing business within India, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications;
<b>13</b>	13.1	<b>Period of Validity of Bids</b> Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.	
	13.2	In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses there to shall be made in writing. A Bidder may refuse the request without forfeiting its Earnest Money Deposit (EMD). A Bidder acceding to the request will neither be required nor permitted to modify the bid.	
<b>14</b>	14.1	<b>Bid Security</b> The Bidder shall furnish as part of its bid, a bid security, as specified in the BDS, in original form the amount and currency as specified in the BDS.	
	14.2	If a bid security is specified, the bid security shall be a	
		a	Demand Draft
		b	An unconditional guarantee issued by a Bank of a reputed source from an eligible country. If the unconditional guarantee is issued by a financial institution located outside India, the issuing financial institution shall have a correspondent financial institution located in India to make it enforceable. The bid security shall be valid for forty five (45) days beyond the original validity period of the bid, or beyond the extended period.
	14.3	If a Bid Security is specified, any bid not accompanied responsive Bid Security, shall be rejected by the Purchaser as non-responsive.	
	14.4	The successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security.	
	14.5	The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the contract and furnished the required performance security.	

	14.6	The Bid Security of the bidder may be forfeited or the Bid Securing Declaration executed:
		<b>a</b> if the bidder he/she withdraws from the bid during the period of bid validity specified by the Bidder on the Tender Forms, or any extension thereto provided by the Bidder; or
		<b>b</b> if the bidder being successful Bidder fails to: <ul style="list-style-type: none"> <li>i. Sign the Contract ; or</li> <li>ii. furnish a performance Security</li> </ul>
<b>D. SUBMISSION AND OPENING OF BIDS</b>		
<b>15</b>		<b>Sealing and Marking of Bids:</b> The Bidder shall submit the bids electronically, through the e-procurement system ( <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> ). Any document submitted through any other means will not be considered as part of the Bid except for the Originals as asked for in this tender.
<b>16</b>		<b>Deadline for Submission of Bids:</b> The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
<b>17</b>		<b>Late Bids:</b> The e-Procurement system would not allow any late submission of bids after the due date and time as per server system. After electronic online proposal submission, the system generates a unique identification number which is time stamped. This shall be treated as acknowledgement of the proposal submission
<b>18</b>		<b>Withdrawal, Substitution, and Modification of Bids:</b> A Bidder may withdraw, substitute, or modify its bid on the e-procurement system before the date and time specified but not beyond. No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Tender Forms or any extension thereof Modification/Withdrawal of the Bid sent through any other means shall not be considered by the Purchaser.
<b>19</b>	19.1	<b>Bid Opening:</b> The Purchaser shall open the bids as per electronic bid Opening procedures that stated in Central Public Procurement Portal (CPPP) at the date and time specified. Bidders can also view the bid opening by logging on to the e-procurement system. Specific bid opening procedures are laid down at <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> under the head “Bidders Manual Kit”. The tenderer/bidder will be at liberty to be present either in person or through an authorized representative at the time of opening of the Bid or they can view the bid opening event online at their remote end. Price Bids of only those tenderers shall be opened whose technical bids qualify.
	19.2	The withdrawn bid will be available in the system therefore will be considered, if bidder once withdraws the bid then he will not be able to participate in the respective tender again. Modification to the bid shall be opened and read out with the corresponding bid. Only bids that are opened and read out at bid opening shall be considered further.
	19.3	The Purchaser shall prepare a record of the bid opening that shall include; the name of the Bidder; whether there is a withdrawal, substitution, or modification; the Bid Price including any discounts and alternative bids; and the presence or absence of a bid security, if one was required. The Bidders’ representatives who are present in the office of the Purchaser to witness the bid opening shall be requested to sign the record. The omission/refusal of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be made available on the e-procurement system.
<b>E. Evaluation and Comparison of Bids</b>		

20	20.1	<b>Confidentiality:</b> Information relating to the evaluation of bids and recommendation of contract award shall not be disclosed to bidders or any other persons not officially concerned with the bidding process until information on Contract Award is communication to all Bidders.
	20.2	No Bidder shall contact the purchaser on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Purchaser it should be done in writing.
	20.3	Any effort by a Bidder to influence the purchaser in its decisions on bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.
21	21.1	To assist in the examination, evaluation, comparison of the bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the Evaluation of the bids.
	21.2	If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser's request for clarification its bid may be rejected.
22	22.1	<b>Determination of Responsiveness:</b> The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself.
	22.2	A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission.
	22.3	The Purchaser shall examine the technical aspects of the bid submitted in accordance with instructions specified in tender document, in particular, to confirm that all requirements enumerated in the 'Schedule of Requirements' Section-VI have been complied with, without any material deviation or reservation or omission.
	22.4	If a bid is not responsive to the requirements of Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation or omission.
23		<b>Conversion to Single Currency:</b> For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as specified in the BDS.
24		<b>Margin of Preference:</b> Unless otherwise specified in the BDS, a margin of preference shall not apply.
25	25.1	<b>Evaluation of Bids:</b> The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
	25.2	To evaluate a Bid, the Purchaser shall consider the following:
	a	Evaluation will be done for Items or Lots (contracts), as specified in the BDS; and the Bid Price.
	b	price adjustment due to discounts offered;
	c	converting the amount resulting from above, if relevant, to a single currency
	d	price adjustment due to quantifiable nonmaterial nonconformities in;
	25.3	The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
	25.4	The Purchaser's evaluation of a bid shall exclude and not take into account:

		a	In the case of Goods manufactured in the India, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
		b	in the case of Goods manufactured outside India, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
		c	any allowance for price adjustment during the period of execution of the contract, if provided in the bid.
	25.5		The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids.
<b>26</b>			<b>Comparison of Bids:</b> The Purchaser shall compare the evaluated prices of all substantially responsive bids established to determine the lowest evaluated bid. The comparison shall be on the basis of CIP-Carriage and Insurance Paid to (place of destination) prices for imported goods and EXW – Ex Works (named place of delivery) prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured within India, together with prices for any required installation, training, commissioning and other services. The evaluation of prices shall not take into account custom duties and other taxes levied on imported goods quoted CIP and sales and similar taxes levied in connection with the sale or delivery of goods.
<b>27</b>	27.1		<b>Qualification of the Bidder:</b> The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria.
	27.2		The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder.
	27.3		An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.
<b>28</b>			<b>Institutes Right to Accept any Bid and to Reject any or all bids:</b> The Institute reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.
<b>F. AWARD OF CONTRACT</b>			
<b>29</b>			<b>Award Criteria:</b> The Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided the Bidder is determined to be qualified to perform the Contract satisfactorily.
<b>30</b>			<b>Purchasers Right to vary Quantities at Time of Award:</b> At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VI, Schedule of Requirements, provided this does not exceed the percentages specified in the BDS, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
<b>31</b>	31.1		<b>Notification of Award:</b>

		Prior to the expiration of the period of bid validity, the Purchaser shall, notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price"). At the same time, the Purchaser shall also notify all other Bidders of the results of the bidding.
	31.2	Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
	31.3	The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award, requests in writing the grounds on which its bid was not selected.
<b>32</b>	32.1	<b>Signing of Contract:</b> Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.
	32.2	Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.
	32.3	Notwithstanding anything contained in clause 32.2, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser that signing of the Contact Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.
<b>33</b>	33.1	<b>Performance Security:</b> Within twenty-eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the General Conditions of Contract (GCC), using for that purpose the Performance Security Form included in Section-X, Contract Forms, or another Form acceptable to the Purchaser. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Purchaser. A foreign institution providing a bond shall have a correspondent financial institution located in India.
	33.2	Failure of the successful Bidder to submit the above- mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.

### Section III. BID Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). In case of in-consistency, the provisions herein shall prevail over those in ITB.

Sl. No.	A. General
1.	The reference number of the Invitation for Bids is <b>NITT/F.NO.017/CAP.EXP.35/18-19/DID Dated : 29.01.2019</b>
2.	The Purchaser is <b>The Director, NIT Tiruchirappalli. Kind Attention To : Security Officer, Security Office, National Institute of Technology-Tiruchirappali</b>
3.	<del>Maximum number of members in the JV shall be:-</del>

Sl. No.	B. Contents of Bidding Documents
4.	For Clarification of bid purposes only, the Purchaser's address is <b>Security Office, National Institute of Technology, National Institute of Technology, Tiruchirappalli, 620015</b> Attention : <b>Security Officer</b> Address : <b>Security Office, National Institute of Technology, Tiruchirappalli,</b> Floor / Room number : - City : <b>Tiruchirappalli</b> ZIPCode : <b>620015</b> Country : <b>India</b> Telephone : <b>+91 431 2503901 / Mobile : 9486001153</b> E-Mail : <b>securityoffice@nitt.edu</b>
5.	Web page : <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>
6.	A site visit shall <b>not</b> be organized by the purchaser.
7.	A Pre-Bid meeting date and venue : <b>15.02.2019 (03.00PM)</b> <b>Administrative office</b>

Sl. No.	C. Preparation of Bids
8.	The language of the bid is : <b>English</b> . All correspondence exchange shall be in <b>English</b> . Language for translation of supporting documents and printed literature is <b>English</b> .
9.	The Bidder shall submit the following additional documents in its bid: <b>NA</b>
10.	Alternative Bids <b>shall not</b> be considered.
11.	The prices quoted by the Bidder <b>shall not</b> be subject to adjustment during the performance of the Contract.
12.	Place of Destination: is <b>National Institute of Technology, Tiruchirappalli – 620015. Tamil Nadu, India.</b>
13.	Final destination (Project Site):National Institute of Technology,Tiruchirappalli., <b>Security Office, National Institute of Technology, Tiruchirappalli, 620015. Tamil Nadu, India.</b>
14.	The prices shall be quoted by the bidder in : <b>Indian Rupee / <del>Foreign Currency of Principal's Country (Preferably in Indian Rupees)</del></b> The Bidder is required to quote in Indian Rupees (INR), the portion of the bid price that corresponds to expenditures incurred in Indian Rupees (INR).
15.	Manufacturer's authorization <b>is Required</b>
16.	After sales service <b>is Required</b> .
17.	The bid validity period shall be <b>120 days from the closing date.</b>
18.	EMD / Bid security <b>Rs.2,00,000/- (Rupees two lakhs only)</b> shall be paid by the way of Demand Draft (DD) / Bank Guarantee (BG) in favour of The Director, National Institute of Technology, Tiruchirappalli,Tamilnadu,India-620015 and should be valid for a period of 45 days beyond the BID validity period. All tenders received without EMD / Bank Security shall be rejected
19.	Other types of acceptable securities: <b>NA</b>

Sl. No.	<b>D. Submission and Opening of Bids</b>
20.	<p>For bid submission purposes only, the address is <b>Assistant Registrar (S&amp;P), Stores and Purchase Section, National Institute of Technology, Tiruchirappalli, 620015.</b></p> <p>Attention : <b>Security Officer</b></p> <p>StreetAddress : <b>National Institute of Technology, Tiruchirappalli,</b></p> <p>City : <b>Tiruchirappalli</b></p> <p>ZIP/PostalCode : <b>620 015</b></p> <p>Country : <b>India</b></p> <p>The deadline for bid submission is :</p> <p>Date and Time : <b>06.03.2019 (11.00AM)</b></p> <p>The electronic bidding opening procedures shall be as given in Section I-Instructions for Online Bid Submission.</p>
21.	<p>The bid opening shall take place at : <b>Stores and Purchase Section, National Institute of Technology, Tiruchirappalli-620015.</b></p> <p>StreetAddress : <b>National Institute of Technology, Tiruchirappalli</b></p> <p>Floor / Roomnumber : <b>Administrative Block</b></p> <p>City : <b>Tiruchirappalli</b></p> <p>Country : <b>India</b></p> <p>Date and Time : <b>07.03.2019(11.00AM)</b></p> <p>The electronic bidding opening procedures shall be as given in Section I - Instructions for Online Bid Submission.</p>
Sl. No.	<b>E. Evaluation and Comparison of Bids</b>
22.	<p>Technical Evaluation will be done as per the Technical Qualification Criteria (Based on Marks) provided in Section VI Scope of Work &amp; Schedule of Requirements under 10. Method of Selection &amp; Technical Evaluation Criteria</p>
23.	<p>The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is : Indian Rupees</p> <p>The source of exchange rate shall be : Reserve Bank of India.</p> <p>The date for the exchange rate shall be: Last day for submission of Bids.</p>
24.	<p>A margin of domestic preference shall apply.</p>
Sl. No.	<b>F. Award of Contract</b>
25.	<p>The maximum percentage by which quantities may be increased is :<i>NA</i></p> <p>The maximum percentage by which quantities may be decreased is:<i>NA</i></p>

## Section IV. Prequalification

1. A Declaration by the firm that it has never been black-listed must be attached along with the Bid, failing which the Bid shall be rejected.
2. Profile of each Bidder and past experience in supply of the material (certificates to be enclosed), proof of manufacturing Unit/Dealership letter and general order supplier. Manufacturer's authorization certificate as prescribed in Section IX in case bidder is not manufacturer.
3. List of other Govt. Departments, Public Sector units and Central Autonomous Bodies for which the bidder is supplying material or having the similar type of contracts and a certificate regarding the satisfactory performance of the contract.
4. True copy of Permanent Account Number.
5. Copy of the last three years audited balance sheet of your firm
6. Details of Goods and Service Tax (GSTIN) along with a copy of certificate to be attached.
7. Submission of samples if required, for all items indicated in the schedule of requirements. The make of items proposed to be supplied should be indicated in the format of the schedule of requirements and submitted along with the techno commercial unpriced bid without indicating the pricing components.
8. Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the schedule of requirements are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.
9. **And also the pre-qualifications detailed in Part 2 Section VI 1. Scope of Work of CCTV Surveillance System A3 Prequalifications.**

## Section V. Institute against the Corrupt and Fraudulent Practices

Institute strictly adheres to its policy against corruption and requires that bidders and their agents, subagents, sub-contractors, suppliers, etc. shall not indulge in any kind of corrupt practices, fraudulent practices, collusive practices, coercive practices, obstructive practices or other kinds of corruption declared as crimes under Indian law.

- a) If bidder or their agents, subagents, sub-contractors, suppliers, etc. are found, directly or indirectly, involved in such practices, bid or agreement and execution thereof at any stage may be rejected or cancelled as the case may be by the Institute and besides it Institute may initiate legal actions including civil and criminal proceeding.

For the purpose of this provision the terms are defined as follows :

- (i) “Corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party ;<sup>1</sup>
- (ii) “Fraudulent Practices” is any act or omission including a misrepresentation which knowingly or recklessly made to mislead another party to obtain financial or other benefit or to avoid an obligation ;<sup>2</sup>
- (iii) “Collusive Practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party ;<sup>3</sup>
- (iv) “Coercive Practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party ;<sup>4</sup>
- (v) “Obstructive Practice” is deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive or collusive practice ; and / or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation.
- b) Besides actions under clause (a) Institute may also take action to blacklist such bidder either indefinitely or for a specified period.

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<sup>1</sup> For the purpose of this sub-paragraph, “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes Institute staff and employees of other organizations taking or reviewing procurement decisions.

<sup>2</sup> For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

<sup>3</sup> For the purpose of this sub-paragraph, “party” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.

<sup>4</sup> For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.

## **Part - 2**

# **Scope of Work, Schedule of Requirements, Site Inspection & Technical Evaluation Criteria**

NIT, Tiruchirappalli

## Section VI. Scope of Work, Schedule of Requirements, Site Inspection & Technical Evaluation Criteria

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**Section VI**  
**Scope of Work & Schedule of Requirements**

**1. SCOPE OF WORK OF CCTV SURVEILLANCE SYSTEM**

**A. OVERVIEW OF WORK**

Scope of the work is to provide Turnkey Solution that includes but is not limited to installation only. It should cover Design, Supply, Installation, Implementation, Commissioning, Setting up of Control room for CCTV, Training, providing user manual, providing 05 years Warranty for the total solution including all hardware, software, materials, services and support, etc. which should providing an Integrated Video Surveillance System for NIT-Tiruchirappalli.

Work also includes all related work with setting up of CCTV control station and controlling office at Locations specified for the purpose. All necessary cabling / wiring / sockets and allied infrastructure conforming to respective quality / standard norms are also included in the scope of this job.

**A1 BIDDING**

This E-tender will be processed under two stage bidding.

Bidder shall be responsible for the following scope of services and shall be the Single Point of responsibility for the end user/client officials for the entire period of 05 years of warranty.

**A2 SITE VISIT**

The potential bidder may visit NIT-Tiruchirappalli from 11 Feb 2019 to 14 Feb 2019 to study the technical feasibility & survey for providing the service in establishing CCTV service in NITT.

The pre-bid meeting will be on 15 Feb 2019 & all clarifications of the bidders will be entertained. However, the potential bidder should submit his queries well in advance right from 11.02.2019 to 14.02.2019(18.00 Hours) to the following email id: securityoffice@nitt.edu.

The request for visiting the campus should be sent in advance to the security office giving in details the visitors and the company's profile.

Visiting Date from 11.02.2019 to 15.02.2019.

The email of security office is: [securityoffice@nitt.edu](mailto:securityoffice@nitt.edu)

NIT-Tiruchirappali Land Line Office No: **0431 – 2503901**

Mobile: **9486001153**

### **A3 PREQUALIFICATION**

Contractors who fulfill the following requirements shall be eligible for pre-qualification. Should have satisfactorily completed the works as mentioned below during the last Seven years ending 31st December 2018: -

- Three similar works each cost not less than Rs. 1.2 Crore (installing minimum 200 CCTV cameras), or two similar works each costing not less than Rs. 2 Crore (installing minimum 300 CCTV cameras) or one similar work costing not less than Rs. 3 Crore (installing minimum 450 CCTV cameras).
- One work of similar nature (either part of (i) above or a separate one) costing not less than Rs.1.2 Crore (installing minimum 200 CCTV cameras) with any Central/State organisation. The above mentioned similar CCTV works should be in a Minimum covered area 100 Acre or more of Government Department / Central Autonomous Body/ Central Public Sector Undertaking or educational institution.
- Similar work shall mean supply and installation of 200 CCTV security system and allied networking work of above 200 CCTV cameras in any type of building, public places, institution campus or other similar areas. Any individual work or part of any major construction work shall be considered.
- Should have a solvency of Rs. 1.20 Crore.
- The bidder shall be an Original Equipment Manufacturer (OEM)/ authorized distributor /dealer of OEM and should be in business of manufacture and/or supply installation and maintenance of the offered item/s and having experience for a minimum period of **SEVEN (7) years** as on bid calling date.
- The OEM should confirm that the supplied items by OEM /the authorized representative of OEM(Bidder) are of Original make, Quality products and are not at end of life.
- **The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV Tender.***
- **OEM & Company not certified by “BIS” for their CCTV product are not eligible for this CCTV Tender**
- The Bidder must be registered company in India under Company’s Act 1956; or a firm registered with Commercial Tax / Sales Tax/GST with Authorities of Government of India.
- The bidder should have cumulative Annual Financial Turnover of Rs.18.00 Crore for for

last 3 financial years (2015-16, 2016-17 & 2017-18). – Income Tax returns and audited balance sheets certified by CA shall be submitted along with PQ bid.

- The bidder shall enclose a declaration from OEM stating that the products quoted in the present tender are latest and are still being manufactured and OEM shall continue to provide services and support for the offered products for a minimum period of next 5 years.
- Bidder should be able to provide end to end QOS service (Quality of Service) and also have ladder, tool kits and other equipment required for maintenance of outdoor CCTV camera. Bids without this undertaking shall summarily be rejected.
- The bidder should have sufficient technical expertise, relevant experience and requisite infrastructure for the proposed scope of work
- The OEM/Bidder Should ensure that MHA guidelines be followed.
- Should not have incurred any loss in more than two years during the last five years ending 31<sup>st</sup> December 2018.

Contractors who fulfill the following above requirements shall be eligible for **pre-qualification**. Also Should have satisfactorily completed the works as mentioned above during the last four years ending 31st December 2018: -

Firms who will fulfill the above criteria supported with following documentary proof shall only be considered for participation:

The bidder/OEM should have **minimum cumulative sales turnover** (numbers) for the items/products mentioned (“BIS” of brand/model) and for the brand offered, during the financial years as mentioned below:

S. No.	Item description	Financial Years	Total Sales of CCTV Camera (nos.)	“BIS”Brand offered sales (nos.)
<b>Schedule I</b>				
1	IP HD Bullet/Dome Cameras for CCTV systems	2016-2018	1000	500
2	Network Video Recorders	2016-2018	500	250

- The bidder should furnish the information on major past supplies under the relevant products/services and satisfactory performance during the last Three financial years.
- The Manufacturer/OEM should have full-fledged offices/service centers across India and at least one service center in Tamilnadu state as on bid calling date. The Bidder/OEM having at least one Service center in Chennai /Tiruchirappali will be given preference as per evaluation criteria, details of the service centers & service engineers should be enclosed in separate company letter head.
- The bidder should submit/give declaration stating that they are not debarred/blacklisted by any State Government, Central Government, Central & State Govt. Undertakings/enterprises/Organizations and by any other Quasi Government bodies/Organizations, World Bank or any major Enterprise /Organization in India for non-satisfactory performance, corrupt & Fraudulent or any other unethical business practices.

Further stating/declaring that no cases pending against the firm/organization either in Government (State or Union) for involvement in cases for supply of sub-standard goods/material or track record of supply of inferior quality or no enquiries on past supplies are being conducted or underway in the **100 Rs stamp paper (Upload Scanned copy)**

- If the bidder is debarred/ blacklisted as mentioned above, such bidder becomes ineligible to participate in the bidding process. In case of any concealing of information relating to blacklisting or pending of cases as mentioned above, NIT-Tiruchirappali reserves the right to cancel the work order/contract allotted, apart from forfeiting EMD/PBG. NIT-Tiruchirappali reserves the right further to take penal action on the bidder.
- Sub-contracting of any part of the project/work is not permitted in the present Tender.
- The Director, NIT-Tiruchirappali reserves the right in not considering the bid of a bidder, if such bidder/consortium member was a previous supplier and had a past bad track record or their earlier performance was unsatisfactory on any count.

**Note:**

- All the Relevant documents in support of above should be furnished with Pre- Qualification Bid.
- All relevant Formats of this Tender document should be filled in by the competent authority of bidders, signed & stamped with company seal. Failure to do so will result in rejection of the bid.
- **Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems.**
- **OEM & Company not certified by “BIS” for their CCTV product are not eligible for this CCTV Tender**
- Consortium bid not allowed.
- Sub-contracting of any part of the project is not permitted.
- No escalation of prices will be considered under any circumstances.
- List of similar works carried out by them for the last five years indicating, the Organization for whom executed, indicating Value of work, Completion time (Stipulated and Actual)
- List of similar works in hand indicating, the Organizations for whom the work is executed, Value of work, Completion time: Stipulated and Actual present status of the work,
- Performance certificate issued by the employer
- List of Technical Staff
- proof of registration
- Pan, GST & TIN number
- Latest Bank Solvency Certificate. Viii) Organizational Structure ix) Constitution of the organization and year of incorporation.

Firms who will fulfill the above criteria supported with following documentary proof shall only be considered for participation in this CCTV tender.

**Kind Attention for Bidders:**

**The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV Tender.***

## **B. DETAILED SCOPE OF WORK FOR BIDDER**

PART-I: Supply and Installation of the CCTV Surveillance System: The installation of CCTV will be covered in three phase.

- A) Zone 1 : Academic Area**
- B) Zone 2 : Residential & Hostel area**
- C) Zone 3 : Area not covered under both.**

1. Supply, installation, testing, commissioning , operate, maintain and provide warranty & related support services for hardware and upgrade / update / enhancement for system software, as detailed out in technical specifications, including related software, firmware etc. for a period of 05 (five) years from the date of successful installation for all supplied items at NIT-Tiruchirappalli site including additional material / hardware / software / services as may be required to be supplied without any additional cost.
2. Any software and firmware upgrade / enhancement / engineering changes applicable to the hardware and software supplied should be provided for the warranty period within a period of one month from the date of release.
3. Providing detailed architecture diagram of Test & Development, Quality and Production environment setup for optimum performance, security, scalability and desired uptime requirement. Should include all other supporting material as per the requirement to ensure smooth implementation. In that context, it is a 'turn - key' assignment.
4. The System Integrator will need to provide a detailed implementation plan including the architecture diagram, strategy, approach, and delivery of materials, specific issues, and their resolutions. Detailed implementation and post - implementation processes and procedures.
5. Bidder has to provide the services for configuring and installing the hardware, deploying and installing the system software as per the requirements (porting of the application) /testing /integration of various hardware and software, as may be needed at NIT-Tiruchirappalli Site without any additional cost for the period of 05 years from the date of installation for all supplied items
6. Bidder has to collaborate, coordinate and deploy manpower to ready the entire project setup. Bidder must build in the cost for the same, if any under implementation services.
7. Bidder should has a back-end / back-to-back support Contract/agreement/arrangement for services including supply of spare parts, expertise requirements, etc. with the Original Equipment Manufacturers (OEMs) of CCTV peripherals, which includes the post-sales support activities to meet the **Service Level Agreement (SLA)** mentioned for the entire solution period. The OEM undertaking letter on OEM Letter Head in this regard should be submitted along with the bid.
8. Costs must include cost of delivery at designated locations of NIT-Tiruchirappalli, transit handling and insurance, custom duties, etc. as may be applicable. Taxes shall be shown separately as in financial bid and should include all applicable taxes as on date of bidding and shall be paid as per actual. Taxes not quoted shall not be paid to the Bidder.
9. Provide on-site warranty support as stated in Technical Specifications Warranty Clause for

all the supplied items.

10. Bidder has to ensure seamless integration of quoted Hardware & software product with applications and also has to provide the material/services which are not mentioned in min tech specification but required to complete the turnkey solutions without any additional cost invariably.
11. The installation must be done directly by OEM or directly by through their authorized partner/reseller/system integrator but the overall responsibility lies with OEM only. Note that all quoted products must be ; configured for 3 years Hardware and 3 years Software warranty taken from OEM by bidder.
12. Bidder has to submit the detailed BOM (Bill of Material) along with the internal part numbers nos. for all quoted products inclusive of all licenses.
13. Bidder has to submit the OEM compliance letter showing line by line compliance with tender specification.
14. Bidder has to submit the full compliance of the tender terms & condition, scope of work and Service level agreement.
15. Bidder has to strictly adhere to Service Level Agreement
16. The server and storage products if used in virtualized environment for video management software necessary Installation / reinstallation of VMS, configuration and implementation support in future if required shall be provided by successful bidder.

## **B1. Overview AND Ensuring Solution of CCTV Surveillance System**

B1.2.1-The envisaged CCTV Integrated Video Surveillance system shall be IP based & ONVIF System with distributed architecture having control room at the local office of installed location & viewing facility at the NIT-Tiruchirappali. Fixed Day and Night Surveillance Cameras shall be used at informed location. All the cameras should be capable to record all the activities even zero light.

B1.2.2-The Proposed Solution should allow NIT-Tiruchirappalli officials to locally and centrally monitor its facilities from a remote location on a personal computer / monitor / I Phone / iPad / Android. Any kind of configuration / setting done by bidder without any cost.

B1.2.3-The Solution should capture, store, and analyze digital Video images to enable central monitoring, increase operational efficiency, reduce liability, minimize risk and secure people & property.

B1.2.4-The digital conversion should ensure secure and ready video access from virtually anywhere on network. Authorized personnel should be able to check the images of specific locations, people, and events, anytime and anywhere, without reviewing countless hours of video recordings.

B1.2.5-The system should be provided with weather proof IP Fixed Camera, lens, housing & mountings to capture video with which, would be viewed & controlled through the Video Management Software, recorded and stored.

B1.2.6-Supply, installation, testing & commissioning of Minimum 1 KVA UPS (Batteries provided with back up time of 30 Minutes system) for the entire CCTV system. UPS shall be located at Local Control room. From Panel Power source to UPS and UPS to all other CCTV equipment

B1.2.7-The NVR shall make continuous recording of all cameras for 24 hrs x 7 days with hardware should have adequate storage for a period of 30 days. System Integrator should provide the exact storage calculation. If necessary, additional storage in form of hard disk drive shall be provided by the Bidder. Bidder should provide Wireless mouse for each location for viewing & managing NVR.

B1.2.8-Arranging tools, tackles, machinery, test instruments, consumables, skilled manpower, etc. complete in all respects for installation, testing and commissioning of the system.

B1.2.9-Preparation of Functional Design Specifications, Documents, Factory Acceptance Test Procedures, Site Acceptance Test & Final Acceptance Testing Procedures, etc. and obtaining approval from the NIT-Tiruchirappalli.

B1.2.10-On completion of the works and before issue of certificate of completion, the bidder shall provide inbuilt documents including manuals and operating instructions, software, software keys/passwords and training to MGVCL's personnel in all aspects of system design, theory of operation of equipment, functional details, trouble shooting and familiarization with systems as per scope of work etc.

B1.2.11-The intent of the specifications is to cover the turn key responsibility for (1) Site survey, selection of equipment and system engineering for design, supply, installation, integration and commissioning of CCTV based security surveillance system and various sub system required to complete the system in all respect (2) The equipment offered together with all services to be performed by the bidder as covered under the specifications of this work shall be fully in compliance with the requirements (3) The bidder shall furnish together with data requirements, complete bill of materials, drawings, technical data, information, technical literature for operation and maintenance and other details required to fully establish the capability and performance of the equipment offer.

B1.2.12-The materials offered together with all services to be performed by the Bidder as covered under the specifications of this work shall be fully in Compliance with the requirements stated herein.

B1.2.13-The Bidder shall be responsible for providing all materials, equipment, installation / maintenance tools and services, specified or otherwise, which are required to fulfill the intent of ensuring operation-ability/ maintainability and reliability of total materials covered under these specifications. The work and materials shall be in compliance with all applicable, statutory regulations and safety requirements applicable.

B1.2.14-The interpretation of NIT-Tiruchirappalli in respect of the scope, details and services to be performed by the Bidder shall be binding upon the Bidder.

B1.2.15-Applications of the proposed System should include tracking Movements / Verification and recognition, through high quality images, of persons and Objects including vehicles. The recordings of the scene of the Jurisdiction shall be helpful in case of enquiries, etc. in establishing the truth. If required for any incident NIT-Tiruchirappalli has the rights to call vendor & Vendor has to provide event, time, day, Motion based, etc. Recording to NIT-Tiruchirappalli official.

B1.2.16-Software should be able to trigger & pop up Real Time videos on trigger of any Video Analytic Alarm. The software should be able to record for all the cameras with time stamping. If required centrally VMS software through remote location/subdivision camera recording at remote

server should be installed by vendor as and when required without any cost. The VMS integration should be done by awarded bidder.

B1.2.17-Drawings and Data Requirements to be submitted by the Bidder for the complete system like:

- Technical Architecture of Proposed System
- Complete Bill of Quantity (BOQ)
- Complete Data Sheet
- Complete Material Specification
- Video Management and Software specification
- Test Records and Commissioning Documents.
- Diagrams and Wiring connection
- Operation and Maintenance Manual
- As Built Drawings

The NIT-Tiruchirappalli and its representative shall have the right to inspect and test each equipment at all stages of production and commissioning of the system. The inspection and testing shall include but not be limited to raw materials, Components, sub-assemblies, prototypes, produced units, guaranteed Performance specifications, etc. For factory inspection and testing, bidder shall arrange all that is required e.g. quality assurance personnel, space, and test Gear, etc. for successfully carrying out of the work by the NIT-Tiruchirappalli official at the Manufacturer's work.

During Site Acceptance Tests the performance of each equipment and system as a whole shall be measured and documented. Any failure/ equipment switchover shall be documented. List of all equipment, spares/ components etc. shall be prepared. If during 'Site Acceptance Test' any defect is noticed in the system, the Bidder shall rectify / replace the same to the satisfaction of MGVCL at no extra cost.

It shall be explicitly understood that under no circumstances any approval of the jointly NIT-Tiruchirappalli representative relieve the Bidder of his responsibility for material, design, quality assurance and the guaranteed performance of the system and its constituents.

### **B2. Helpdesk Services**

1. Provide Help desk solution that enables end users to log their complaints or requests and tracks the same till the resolution.
2. 24 by 7 Help Desk facilities for user for the period of 05 (five) year should be provided.
3. Bidder shall set up a centralized helpdesk to log complaints of the users and issue the log ticket number and communicate the corrective measure. Bidder shall provide - Customer support interface with E-Mail, online, telephone and onsite support.

### **B3. Service Legal Agreement reporting**

1. Provide warranty / on-site maintenance for CCTV Surveillance system that shall be supplied and installed under this procurement throughout the period of warranty as per Service Legal Agreement.
2. The support coverage shall be as per "Service Level Agreement".
3. Ensure that all this equipment integrate and function as per the requirements and meet SLAs set out in this document

### **B4. Service Call Log**

Bidder should to maintain Service call register for the supplied items and submit the call log on monthly basis to MGVCL as per the format specified by the NIT-Tiruchirappalli.

## **B5. Training and Documentation**

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

1. Factory/ Site test certificates of various equipment supplied.
2. Original Manufacturers manual and warranty cards.
3. Installation certificates of all equipment, description of configuration profile as executed for different equipment.
4. Troubleshooting chart for all equipment, Standard OEM checklist for installation, maintenance etc., if any. Training documents System Integrator shall provide training for minimum 1-2 days of installation, configuration, commissioning, monitoring and troubleshooting of various equipment like NVR, storage, Backup system, Mobile access associated software, etc. to NIT-Tiruchirappalli official.

The detailed contents, coverage and Methodology for training will be decided mutually by the System Integrator and NIT-Tiruchirappalli.

- a) System Integrator is to provide course material for each trainee
- c) Training shall be provided through OEM certified professionals & or bidder only. The training shall be conducted within 7 days from the date of installation.

## **B6. Comprehensive Maintenance**

### **B6.1 SCOPE OF COMPREHENSIVE ANNUAL MAINTENANCE SERVICES:**

After commissioning and maintenance during defect liability period of one year, scope of comprehensive maintenance services will commence. It includes providing routine maintenance services pertaining to complaints as and when they occur in the commissioned CCTV Camera and preventive maintenance services. Services shall include providing all skilled & un-skilled man power, tools and plants and replacement of defective spare parts including consumables. The rates quoted shall also include all taxes and duties as applicable and cost of transportation, insurances etc.

### **B6.2 PREVENTIVE MAINTENANCE SERVICES:**

Preventive maintenance shall include the following services:

- To check with the NIT- Tiruchirappalli CSG engineers & Security Office for deficiencies
- To provide consumable & non-consumable material and man power for the services.
- To check controls and the unit for proper operation.
- To clean Camera and area around the equipment as required.
- To fill out maintenance checklist and report deficiencies.
- Supply, install, operate, maintain and provide warranty & related support services for hardware and upgrade/update/enhancement for system software, as detailed out in technical specifications, including related software, firmware etc. for a period of 5 years from the date of completion and handover of the complete system to the user for all supplied items at NIT-Tiruchirappalli site.
- Any software and firmware upgrade / enhancement / engineering changes applicable to the hardware and software supplied should be provided for the comprehensive maintenance within a period of 3 months from the date of release.
- Camera OEM should have local RMA center in Tamilnadu/ India.
- Spare camera of 2MP PTZ Dome 2 nos. and 2 MP Bullet Camera 2 nos. has to be kept at

the site free of cost to minimize the downtime.

- During the duration of this contract, bidder will do a quarterly preventive maintenance and health checkup of the system.
- Regulated supply for the equipment's shall be arranged by contractor.
- Bidder should have back-to-back support contract/agreement/arrangement for services including supply of spare parts, expertise requirements etc. with the Original Equipment Manufacturers (OEMs) of CCTV peripherals which includes the post-sales support activities to meet the Service Level Agreement (SLA) mentioned for the entire solution period.

### **B6.3 ON CALL SERVICES:**

- On call services shall include attending to any complaint any time during the maintenance contract, on receipt of verbal/written complaint from officials / authorities of NIT-Tiruchirappalli.
- Even if no call is made by the officials / authorities of NIT-Tiruchirappalli the contractor is required to undertake preventive maintenance by checking the system regularly and confirm that the systems are in the best of the working conditions. In case of any fault arising in normal conditions / programming changes, the call will be attended within 24 working hours after reporting of fault at bidder office during normal office hours (9.30 am to 5.30pm).
- Any faults should be resolved within 2 working days after the identification of the fault. In case the same is not resolved within the stipulated time compensation of Rs.1000/- per day will be levied.

### **C. NIT-Tiruchirappalli - SCOPE OF WORK:**

1. NITT will provide earthing pits and earthing point for Suitable power and environmental conditions in NITT premises of all electronic hardware pertaining to CCTV Equipment. Vendor to connect earthing to the equipment and confirm its working.
2. Providing regulated power supply for CCTV System shall be in NITT scope of work. Vendor to terminate and commission the same.
3. IP Address list & Lease line, Broadband connectivity provided by NITT. Along with related hardware.
4. Vendor to ensure the seamless integration with site CCTV client and remote viewing over the connectivity. Apart from the details listed above, any other items/services/hardware/software required for the successful completion of turnkey project shall be in Vendor's scope without any additional cost.

## Section VI. Schedule of Requirements & Scope of Work

### 2. List of Goods and Delivery Schedule

Item No	Description of Goods	Quantity	Physical unit	Final (Project Site) Destination as specified in BDS	Delivery (as per Incoterms) Date		
					Earliest Delivery Period (days)	Latest Delivery Period (Days)	Bidder's offered Delivery period [to be provided by the bidder]
1.	Supply, Installation, Testing, Commissioning of IP based CCTV Camera, CCTV Control Room and Surveillance system in the entire campus of NIT, Tiruchirappalli	01	Nos	National Institute of Technology, Tiruchirappalli., Security Office, National Institute of Technology	21	35	

#### **Kind Attention for Bidders:**

The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV Tender.*

## Section VI. Schedule of Requirements & Scope of Work

### 3. List of Related Services and Completion Schedule

Service	Description of Service	Quantity	Physical Unit	Value of the Service	Place where Services shall be performed	Final Completion Date(s) of Services

[As per Pre-qualification detailed in sl.no.9 under Section IV Pre-Qualification. This document to be uploaded by the bidders alongwith proof]

## Section VI. Schedule of Requirements & Scope of Work

### 4. Technical Specifications

Name of the Supply and Service	Supply, Installation, Testing, Commissioning of IP based CCTV Camera, etup of control room CCTV Control Room and Surveillance system in the entire campus of NIT,Tiruchirappalli
Installation Required	Yes
Warranty (in months)	60 months
AMC Required	Yes
Delivery Period (Weeks)	5 Weeks
Shipment Terms	Up to NIT, Tiruchirapalli
Payment Term	Phase wise payment after satisfactory delivery / Installation/Completion of Service
Performance Security	5%

#### **A. Requirement of Various Equipments for the CCTV System at NIT, Tiruchirappalli - 15**

EQUIPMENT / OTHER ITEM required for the CCTV System
<b>B1. CAMERA TYPE -1 2MP PTZ SPEED DOME CAMERA - 30X OPTICAL ZOOM</b>
<b>B2. CAMERA TYPE-2 2MP Bullet Camera with H.265 Compression</b>
<b>B3. CCTV Control Room Set up</b>
<b>B4. Network Video Recorder (NVR)</b>
<b>B5. LED TV Screen (55 Inches)</b>
<b>B6. LED TV Screen (65 Inches)</b>
<b>B7. 1kVA UPS</b>
<b>B8. 9U Rack</b>
<b>B9. Network Switch [24 Port POE Network Switch (Access Switch)]</b>
<b>B10. Junction box</b>
<b>B11. UTP Cable</b>
<b>B12. 2 Meter Ethernet patch cord</b>
<b>B13. 1 meter Ethernet patch cord</b>
<b>B14. 24 Port CAT6 Jack Panel</b>
<b>B15. Optical Fiber Cable</b>
<b>B16. Workstation / Client Machine</b>
<b>B17. Other required items for the installation and commission of CCTV system (to be provided by the Bidder)</b>

## Section VI. Schedule of Requirements & Scope of Work

### 4. Technical Specifications

#### **B. Requirement of Various Equipments Detailed specifications**

#### **B1. 2MP PTZ SPEED DOME CAMERA - 30X OPTICAL ZOOM:**

TYPES OF CAMERA	Approximate required *Quantity 15 no's
<b>CAMERA TYPE -1</b>	
<b>Camera Specs.</b>	
Image Sensor	SONY EXMOR – STARVIS Series – Size :1/2.8 1/3" Progressive CMOS or better
Maximum Resolution	1920x1080 (2MP)
Lens Type	20x Optical Zoom, Auto Focus
Focal Length	f= 4.7 ~ 94 mm
Aperture	F1.6 ~ F3.5
Auto-iris	DC-iris
Field of View	3° ~ 55° (Horizontal)
	2° ~ 33° (Vertical)
	3° ~ 63° (Diagonal)
Shutter Time	1/8 sec. to 1/25,000 sec. or better
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.26 Lux @ F1.6 (Color)
	0.01 Lux @ F1.6 (B/W)
Pan Speed	0.05° ~ 400°/sec.
Pan Range	360° endless
Tilt Speed	0.05° ~ 400°/sec.
Tilt Range	110°
Preset Locations	256 preset locations, 128 presets per tour
Pan/tilt/zoom Functionalities	128x digital zoom (4x on IE plug-in, 32x built-in)
	Auto pan mode
	Auto patrol mode
On-board Storage	Slot type: SD/SDHC/SDXC card slot
	Seamless Recording
<b>Video</b>	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	H.265 & H.264: 60 fps @ 1920x1080
	MJPEG: 30 fps @ 1920x1080
Maximum Streams	4 simultaneous streams
S/N Ratio	50 dB or better
Dynamic Range	100 dB or better
Video Streaming	Adjustable resolution, quality and constant bit rate control; Smart Stream II

Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks (up to 24); Scheduled profile settings, EIS, 3DNR, defog
<b>Audio</b>	
Audio Capability	Two-way Audio (full duplex)
Compression	G.711, G.726
Interface	External microphone input
	External line output
<b>Network</b>	
Users	Live viewing for up to 10 clients
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, NTCIP, ICMP, ARP, SSL, TLS
Interface	10 Base-T/100 BaseTX/1000 BaseTX Ethernet (RJ-45)
ONVIF	Supported
<b>Intelligent Video</b>	
Video Motion Detection	Five-window video motion detection
<b>Alarm and Event</b>	
Auto-Tracking	Auto-tracking on moving object
Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, audio detection
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and SD Card
	File upload via HTTP, SMTP, FTP, NAS server and SD card
<b>General</b>	
Connectors	RJ-45 cable connector for Network/PoE connection
	Audio input
	Audio output
	24V DC / 24V AC power input
	Digital input*4
	Digital output*2
	RS-485
LED Indicator	System power and status indicator
Power Input	24V DC
	24V AC
	60W UPoE
Power Consumption	Max. 48/26 W (Heater on/off)
Casing	Weather-proof IP68-rated, Vandal-proof IK10-rated, and NEMA 4X-rated mated housing
Safety Certifications	CE, FCC Class A, VCCI, C-tick, UL, NEMA 4X
Operating Temperature	-40°C ~ 55°C (-40°F ~ 131°F)
Humidity	90%

MAF	To be provide by OEM on their letter head mentioning concerned Vendor
Manufacturer	Authorization form mandatory
Warranty	5 years from date of supply
<b>Recommended Make</b>	<b>Bosch, Pelco, Vivotek, Sony, AXIS, Pelco, Matrix, Dahua, Dall Meier, Infinova.</b>

Equipment / Cameras manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems.

### **Kind Attention for Bidders:**

**The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV Tender.***

### **B2. 2MP Bullet Camera with H.265 Compression:**

TYPES OF CAMERA	2MP Bullet Camera with H.265 Compression
<b>CAMERA TYPE -2</b>	<b>Approximate required *Quantity 200 no's</b>
Camera Specs.	
Image Sensor	SONY EXMOR- STARVIS Series Size :1/2.8" or better Version.
Max. Resolution	1920x1080
Lens Type	Fixed-focus
Focal Length	f = 3.6 mm
Aperture	F1.6
Auto-iris	Fixed-iris
Field of View	88° (Horizontal)
	47° (Vertical)
	104° (Diagonal)
Shutter Time	1/5 sec. to 1/30,000 sec. or better
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.3 Lux @ F1.6 (Color)
	0.03 Lux @ F1.6 (B/W)
	0 Lux with IR illumination on
Tilt Range	90°
Rotation Range	180°
Pan/Tilt/Zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built in)
IR Illuminators	Built-in IR illuminators, effective up to 30 meters with Smart IR LED*2
On-board Storage	Slot type: MicroSD/SDHC/SDXC card slot
	Seamless Recording

<b>Video</b>	
Compression	H.265, H.264, MJPEG
Maximum Frame Rate	30 fps @ 1920x1080
Maximum Streams	3 simultaneous streams
S/N Ratio	58 dB
Dynamic Range	110 dB or better
Video Streaming	Adjustable resolution, quality and constant bit rate control;
Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks; Scheduled profile settings, video rotation, 3DNR, DIS, HLC
<b>Audio</b>	
Audio Capability	Two-way audio
Compression	G.711, G.726
Interface	External Mic input
	External line output
<b>Network</b>	
Users	Live viewing for up to 10 clients
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, CIFS/SMB, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, SSL/TLS
Interface	10 Base-T/100 Base-TX Ethernet (RJ-45)
ONVIF	Supported
<b>Intelligent Video</b>	
Video Motion Detection	Five-window video motion detection
<b>Alarm and Event</b>	
Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, camera tampering detection, audio detection, MicroSD card life expectancy
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and MicroSD card
	File upload via HTTP, SMTP, FTP, NAS server and MicroSD card
<b>General</b>	
Connectors	RJ-45 cable connector for Network 10/100 Mbps PoE connection
	Audio Mic in
	Audio line out
	DC 12V
	Digital input *1
	Digital output *1
LED Indicator	System power and status indicator
Power Input	DC 12V

	IEEE 802.3af PoE Class 0
Power Consumption	Max. 7 W
Casing	IP66, IK10 (Metal Housing)
Safety Certifications	CE, LVD, FCC Class A, VCCI, C-Tick, UL
Operating Temperature	Starting Temperature: -10°C ~ 50°C (14°F ~ 122°F)
	Working Temperature: -20°C ~ 50°C (-4°F ~ 122°F)
Humidity	90%
MAF	To be provide by OEM on their letter head mentioning concerned Vendor
Manufacturer	Authorization form mandatory
Warranty	5 years from date of supply
<b>Recommended Make</b>	<b>Bosch, Pelco, Vivotek, Sony, AXIS, Pelco, Matrix, Dahua, Dall Meier, Infinova.</b>

Equipment / Camera manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems.

### **B3. CCTV Control Room Set up :**

<p>“The Bidder has to provide the technical details. For ex : Required Space Monitoring TV Control room set up.</p>
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Equipment / Camera manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems

### **Kind Attention for Bidders:**

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#### **B4. Network Video Recorder (NVR)**

<b>S. No.</b>	<b>Detail Description</b>
1	The system shall be open platform with integration with at least 60 IP camera leading brands in the world. The client OS platform shall be able to run with Microsoft Windows and MAC platforms. (list of integrated brands to be submitted)
2	The system shall be Windows/ Linux platform. The OS can be embedded in device without extra installation.
3	The central Management Server supports unlimited cameras, 3rd party access control systems
4	Up to 10 independent cameras can be set up as single view
5	Intelligent Search: Intuitive post-event motion search for suspicious areas on video and post-event 3rd party data keyword search then queries related camera recording. The system can also search events and double clicking query associated recording.
6	Multi-View: Client PC can duplicate the same live view video onto multiple channels and digitally zoom in to see the details of different spots on cloned channels without losing the original live view video
7	Individual recycle condition (IRC) for each video. Users can assign retention days for each server based on the importance of the critical storage needs.
8	System should support following IVS: (Object Classification, Camera Shake Elimination, Presence (Tripwire), Enter and exit, Appear and disappear, Dwell (loitering), Tailgating, Stop, wrong Direction, missing object detection, foreign object detection, counting)
9	Multiple event-based and schedule-based recording modes, including continuous record, record on event, manual record, event-based and schedule-based boosting record. It also supports pre-event and post-event recording for continuous record to make sure ensure that the event is captured.
10	The system shall be able to synchronize time with NTP server(Internet Time Server)
11	The system shall be able to centrally configure all devices and system settings on one interface.
12	The system shall support system status watchdog and automatically restart the system when abnormal event happened.
13	The system shall be Server-Client Architecture and centralizes all video data transaction only via server to remote clients.
14	The system shall include management server, recording server, and client for configuring and viewing
15	The management server shall be able to centrally manage all servers in the system including configuration, license management, and event monitor.
16	The system shall support user priority of locking PTZ, Preset point and Patrol control. When PTZ control lock, only user with higher or equal control priority can unlock it.
17	The system shall be able to view event notification on e-map.
18	The system shall support volume load balance, enabling user manually distributes cameras recording to different target volumes
19	The system shall support individual recycle condition for every camera and 3rd party channel DB.
20	The system shall support up to 4 monitors through client software.
21	The instant playback shall enable user sync the video to playback instantly.
22	The playback system shall support up to 100 channel playback simultaneously on one monitor, upto 400 ch live view on single client PC and it should be able to playback

	from different servers.
23	The system shall support digital PTZ on recorded video.
24	The system shall support multiple E-maps layers.
25	System should readily support perimeter protection system.
26	Form Factor: Rack-mount 2U
27	Hard Disk Slot: 8xSATA II or better
28	Max Capacity per drive: 10TB (Surveillance / enterprise SATA/SAS drives)
29	Max storage 80TB or better
30	RAID 0,1, 5, 10
31	Interface: 2 X USB3.0; 2 X USB2.0 (for mouse or UPS); 1 X eSATA (for DAS); 1 X VGA
32	Input Power: 100-240V
33	Power Consumption: 400W
34	Network File Protocol : NFS
35	Should support failover in case of one NVR goes down.

Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems

#### **B5. LED TV Screen (55 inches)**

S. No.	Parameter	Detail Description
1	<b>Screen Size</b>	LED - 55 inches – ( Qty 04 nos)
2	<b>Resolution</b>	As per company specification
3	<b>Aspect Ratio</b>	
4	<b>Brightness</b>	
5	<b>Contrast Ratio (Typical)</b>	
6	<b>Viewing Angle (H/V)</b>	178° / 178°
7	<b>Response Time</b>	9ms
8	<b>Direct Lit</b>	Yes
9	<b>Input</b>	HDMI (2), DVI-D, RGB, Audio
10	<b>Output</b>	Audio
11	<b>External Control</b>	S232C in/out, RJ in, IR Receiver, USB
12	<b>Built-in Speakers</b>	10W + 10W
13	<b>Without Stand (W x H x D)</b>	As per company specification
14	<b>Bezel Width</b>	
15	<b>Manufactured at (Country)</b>	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>

## **B6. LED TV Screen (65 Inches)**

S. No.	Parameter	Detail Description
1	Screen Size	LED - 65 inches (Qty – 5 nos)
2	Resolution	As per company specification
3	Aspect Ratio	
4	Brightness	
5	Contrast Ratio (Typical)	
6	Viewing Angle (H/V)	178° / 178°
7	Response Time	9ms
8	Direct Lit	Yes
9	Input	HDMI (2), DVI-D, RGB, Audio
10	Output	Audio
11	External Control	S232C in/out, RJ in, IR Receiver, USB
12	Built-in Speakers	10W + 10W
13	Without Stand (W x H x D)	As per company specification
14	Bezel Width	
15	Manufactured at (Country)	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>

## **B7. UPS**

- 1 kVA UPS with Inbuilt batteries for power backup

## **B8. 9U Rack**

- IP55 Rack 9U 600x450 mm Door Rack with Front Glass Door with lock, 19" Mounting Angles at front, 2 Pairs of Adjustable 19" Mounting Rails are recessible, Sheet Steel Powder Coated, Power Distribution Strip, Exhaust fan with Filter. Cable Manager. Tray, Mounting Hardware. Cable Entry at Top & Bottom.

## **B9. Network Switch**

### **24 Port POE Network Switch (Access Switch)**

S. No.	Detail Description
1	The switch should support a minimum of 24 nos. 10/100/1000 Ethernet Ports
2	The switch should support a minimum of 2 SFP+ Uplinks
3	The switch should support a total of 26 Ports
4	The switch should support Forwarding bandwidth of 100 Gbps or more
5	The switch should support Full-duplex Switching bandwidth of 200 Gbps or more
6	The switch should support 64-Byte Packet Forwarding Rate of 90 Mpps or more
7	The switch should support a Dual Core CPU
8	The switch should support 512 MB of DRAM
9	The switch should support 4096 VLAN IDs

10	The switch should support 16000 Unicast MAC addresses or more
11	The Switch should be 1RU
12	The switch should support stacking port up to 8 switches with dedicated stacking.
13	Stacking should support 80 Gbps or more of throughput
14	The switch should support flexible power allocation across all ports
15	The switch should support 24 ports up to 15.4W
16	The switch should support Per port PoE power sensing to measure actual power being drawn
17	The switch should support IEEE 802.1D Spanning Tree Protocol, IEEE 802.1p, IEEE 802.1Q Trunking, IEEE802.1s Multiple Spanning Tree (MSTP), IEEE 802.1w Rapid Spanning Tree (RSTP)
18	The switch should support IEEE 802.1x, IEEE 802.1ab (LLDP), IEEE 802.3ad Link Aggregation Control Protocol (LACP)
19	The switch should support Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors
20	The switch should support IEEE 802.1Q VLAN encapsulation
21	The switch should support Centralized VLAN Management. VLANs created on the Core Switches should be propagated automatically
22	The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge.
23	The switch should support IGMP filtering
24	The switch should support discovery of the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.
25	The switch should support Per-port broadcast storm control to prevent faulty end stations from degrading overall systems performance
26	The switch should support Voice VLAN to simplify IP telephony installations by keeping voice traffic on a separate VLAN
27	The switch should support Local Proxy Address Resolution Protocol (ARP) working in conjunction
28	The switch should support Configurable IGMP Leave Timer
29	The switch should support IPv4 unicast Static Routing
30	The switch should support 16 IPv4 Static routes or more
31	The switch should support diagnostic commands to debug issues
32	The switch should support system health checks within the switch
33	The switch should support 4 degress queues per port to enable differentiated management
34	The switch should support scheduling techniques for Qos
35	The switch should support Weighted tail drop (WTD) to provide congestion avoidance
36	The switch should support PoE+ (IEEE 802.3at)
37	The switch should support Standard 802.1p cos field classification
38	The switch should support Differentiated services point (DSCP) field classification
39	The switch should support Control- and Data-plane QoS ACLs
40	The switch should support Strict priority queuing mechanisms
41	The switch should support Rate Limiting function to guarantee bandwidth
42	The switch should support rate limiting based on source and destination IP address
43	The switch should support rate limiting based on source and destination MAC address
44	The switch should support rate limiting based on Layer 4 TCP and UDP information

45	The switch should support availability of up to 256 aggregate or individual polices per port or more.
46	Switch should support 802.3az for energy efficient Ethernet
47	The switch should support taking of action based on business rules to reduce power consumption
48	The switch should support IEEE 802.1x to allow dynamic, port- based security, providing user authentication.
49	The switch should support Port-based ACLs for Layer 2 interfaces to allow application of security policies on individual switch ports.
50	The switch should support SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.
51	The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.
52	The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.
53	The switch should support Port security to secure the access to an access or trunk port based on MAC address.
54	The switch should support Multilevel security on console access to prevent unauthorized users from altering the switch configuration.
55	The switch should support Private VLAN
56	The switch should be on the approved list of IPv6 Ready Logo phase II – Host
57	The switch should support IPv6 unicast Static Routing
58	The switch should support 16 IPv6 Static routes or more
59	The switch should support IPv6 MLDv1 & v2 Snooping
60	The switch should support TACACS+ over IPv6
61	The switch should support NTPv4 over IPv6

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### **B10. Junction box**

- IP55, 600X450 mm Out Door Rack with Front Metal Door, 2 Pairs of Adjustable 19” Mounting Rails, Full Powder Coated with Powder Coated with Powder Steel Construction. Power Distribution Strip. 6 Socket, 5Amp. Exhaust Fan With Filter , Cable Manager , Tray Mounting Hardware.

### **B11. UTP Cable**

<b>S. No.</b>	<b>Detail Description</b>
1	Shall be of 4 twisted pairs of 23 AWG solid conductors
2	Shall support network line speeds up to 1 gigabits per second.
3	Shall be 4-pair Unshielded twisted pair with a cross filler/ isolator (+), meeting Category 6 tested to 500MHz or more (4 connector channel test report from Third Party like ETL for TIA/TIA 568- C.2 needs to be submitted with Bid).
4	Should comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet, 100BASE-Tx, token ring, 155 Mbps ATM, 100 Mbps TP- PMD, ISDN, analog (broadband, baseband) and digital video and analog and digital (VoIP) voice.

5	The Category 6 Solution shall fully comply with the link segment specifications for 1000 Base-TX in addition to the ANSI/TIA and ISO/IEC Category 6 requirements.
6	Shall have the length printed on the outer jacket of the cable.
7	Shall be RoHS Compliant
8	Shall be Fire-Retardant, Low-Smoke & Zero- Halogen as per IEC 60332-1, IEC 60332-3-22, IEC61034-2 & IEC 60754-1 respectively. Flame Test report for IEC 60332-3-22 need to be submitted with the bid.
9	Shall be supplied in Reel of 305 Meters/ 1000 feet packed in Boxes
10	Shall have minimum 25-Year Extended Product Warranty.

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### **B12. 2 Meter Ethernet patch cord**

- LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034
- Terminators: Pre-terminated with WE8W plugs
- Standards: RoHS Compliant, Suitable for EIA 568A or 568B wiring RJ45 plug and boot material: Clear polycarbonate
- Approved Makes: MOLEX / AMP / SYSTIMAX/D-link

### **B13. 1 meter Ethernet patch cord**

- LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034
- Terminators: Pre-terminated with WE8W plugs
- Standards: RoHS Compliant, Suitable for EIA 568A or 68B wiring RJ45 plug and boot material: Clear polycarbonate
- Approved Makes: MOLEX / AMP / SYSTIMAX/D-Link

### **B14. 24 Port CAT6 Jack Panel**

- Operating Life: Minimum 750 insertion cycles, Minimum 200 re-terminations Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
- Used in: both Category 6 link and channel gigabit Ethernet applications.
- Commercial Standards: FCC Subpart F 68.5, IEC-603-7, TIA/EIA-568-B.2-1 Component Compliant.
- ISO 11801 Class E Compliant, ETL Verified for Category 6 Component Compliance Interface Resistance: 20 milliohms.
- Constructed of: cold-rolled steel
- Approved Makes: MOLEX / AMP / SYSTIMAX/D-Link

### **B15. Optical Fiber Cable**

S. No.	Detail Description
1	Shall be 9μ, 6/24 core Single mode OS2 metallic armored cable as per ISO/IEC- 11801
2	Shall be able to meet Gigabit & 10 Gigabit Ethernet performance (1000 Base-X) &

	IEEE 802.3ae (10G Base-X)
3	Shall be suitable outdoor laying with steel wires embedded in PE Jacket.
4	Shall be gel filled with loose tube construction
5	Shall have water blocked construction to prevent water absorption and consequent damages
6	Optical Fibers should be in multi tube type of cables
7	Fiber cable shall be RoHS Compliant.
8	The cable type shall be suitable for indoor/outdoor applications
9	Tensile load should be 3000 Newton/meter or higher and crush resistance should be 3000 Newton/meter or higher
10	The attenuation @ 1310 nm shall be $\leq 0.36$ dB/Km and @ 1550 nm shall be $\leq 0.22$ dB/Km
11	Shall have a central FRP rod as a strength member. Shall also have WATER BLOCKING E-GLASS.
12	Shall be multi tube construction with maximum 6 fibers in each tube.
13	Shall have minimum 25-Year Extended Product Warranty.

**B16. Workstation for Management / Client Machine**

<b>Workstation for Management / Client Machine</b>	
<b>S. No.</b>	<b>Detail Description</b>
1	OS Ubuntu 15.10 or windows or latest
2	Embedded App Client & Matrix software already loaded on it. (User to define on 1st time log-in UI)
3	Storage 32G eMMC embeded, 1 x mSATA slot, Front Panel - 4 x USB 3.0, 1 x SD Card Slot, 1 x Line-in/MIC,HDMI x 2, DP x 1
4	Power AC 100~240v, 12~19V, DC-IN 65W
5	1 Gigabit LAN
6	Operational Temp System 0~45C, Board 0~60C
7	Keyboard & Mouse required
8	<b><i>Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i></b>

**B17. Other required items for the installation and commission of CCTV system (to be provided by the Bidder)**

## Section VI. Schedule of Requirements & Scope of Work

### **Kind Attention for Bidders:**

The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV Tender.*

## 4. Technical Specifications

### **C. Guaranteed Technical Specifications (the Bidder should fill-in and upload the documents)**

- The Bidder should compulsorily fill the Guaranteed Technical Particulars for all the options quoted separately with the actual specifications. The offer stating complied/not complied in the Details column may not be considered.
- Bidder are required to fill only one make from the approved make list, multiple make shall not be entertained.

### **C1. 2MP PTZ SPEED DOME CAMERA - 30X OPTICAL ZOOM:**

<b>2 MP Bullet Camera with H.265 Compression</b>					
<b>Product must be 'BIS Certificated / Certified'</b>					
<b>Make :</b>					
<b>Model :</b>					
S. No.	Parameter	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	Image sensor	SONY EXMOR- STARVIS Series Size :1/2.8" or better Version.			
2	Lens	Fixed-focus			
3	Field of View	88° (Horizontal) 47° (Vertical) 104° (Diagonal)			
4	True Day and Night	Removable IR-cut filter for day & night function			
5	Auto - IRIS	Fixed-iris			
6	Minimum Illumination / Light Sensitivity	0.3 Lux @ F1.6 (Color) 0.08 Lux @ F1.6 (B/W) 0 Lux with IR illumination on			
7	Tilt Speed	90°			
8	Tilt Range	180°			
9	Pan/tilt/zoom Functionalities	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built in)			

10	Compression	H.265, H.264, MJPEG			
11	Maximum Frame Rate	30 fps @ 1920x1080			
12	Maximum Streams	3 simultaneous streams			
13	S/N Ratio	58 dB or better			
14	Dynamic Range	110 dB or better			
15	Video Streaming	Adjustable resolution, quality and constant bit rate control; Smart Stream II			
16	Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks (up to 24); Scheduled profile settings, EIS, 3DNR, defog			
17	Audio Capability	Two-way Audio			
18	Compression	G.711, G.726			
19	Interface	External microphone input External line output			
20	Users	Live viewing for up to 10 clients			
21	Supported Protocol	IPv4 & v6, TCP/IP, HTTP, HTTPS, SSL/TLS, QoS, Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, UPnP™, PPPoE, CoS, SNMPv1/v2c/v3(MIB-II), 802.1X, NTCIP, DNS, DDNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, RTCP, IGMP, ICMP, DHCP, ARP			
22	Interface	10 Base-T/100 Base-TX Ethernet (RJ-45)			
23	ONVIF	Supported			
24	Video Motion Detection	Five-window video motion detection			
25	Auto-Tracking	Auto-tracking on moving object			
26	Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, audio detection			
27	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and SD Card File upload via HTTP, SMTP, FTP, NAS server and SD card			
28	Multi-view streaming	Up to 8 individually cropped out view areas			
29	Video Compression	Multi Stream of H.264 & 2 Stream of Motion JPEG individual configurable			
30	Resolutions and frame rates (H.264)	1080P capture mode: Up to 50 fps 50Hz or better			
31	Power Supply	Power over Ethernet IEEE 802.3af, Class 3; max 13W			

32	Remote, Auto Focus support	Yes			
33	Vari-focal Lens	Yes			
34	Edge Storage	Built in SD card slot with support 128 GB with Class 10 speed. 64 GB of memory card needs to be supplied with camera			
35	Security	IEEE 802.1x(No Network Access Without Permission)			
36	ONVIF	ONVIF® Profile S			
37	Operating Temp	-30°C to 55°C			
38	Privacy Mask	Available			
39	Memory	512 MB RAM, 256 MB Flash			
40	Wide Dynamic Range	120 db or better			
41	Digital PTZ	Yes			
42	Intelligent video	Video motion detection, active tampering alarm			
43	IR distance	IR should be for 30 meters distance or more			
44	IR Angle and Intensity adjustment	It should be possible to set the IR beam angle as per the setting of vari-focal lens. Its intensity should change as per camera subject.			
45	Bandwidth Optimization	It should be possible to set the camera at Constant Bit Rate (CBR) within which the camera should work on VBR ( Variable Bit Rate) ,			
46	Camera Casing/Housing	IP66 or IP67- and NEMA 4X-rated casing (polyester polycarbonate blend)			
47	Certifications	EN 55022 Class B, EN 61000-6-1, EN 61000-6-2, EN 50 121-4, IEC 62236-4, EN55024, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, RCM AS/NZS CISPR22 Class B, IEC/EN/UL 60950-1, IEC/EN/UL 60950-22, EN62471, IEC/EN 60529 IP66/IP67, IEC/EN62262 IK08, NEMA 250 type4X, IEC60068-2-1, IEC60068-2-2, IEC60068-2-6, IEC60068-2-27			
48	SMPTE Standard	Specified unit shall meet relevant parts of SMPTE 296M (720p) & SMPTE			

		274M (1080p)			
49	<b>Manufactured at (Country)</b>	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			
50	MAF	To be provide by OEM on their letter head mentioning concerned Vendor			
51	Manufacturer	Authorization form mandatory			
52	Warranty	5 years from date of supply			
53	<b>Preferred Make</b>	<b>Bosch, Pelco, Vivotek, Sony, AXIS, Pelco, Matrix, Dahua, Dall Meier, Infinova.</b>			

**C2. CAMERA TYPE-2 2MP Bullet Camera with H.265 Compression**

<b>2MP PTZ SPEED DOME CAMERA - 30X OPTICAL ZOOM</b>					
<b>Product must be 'BIS Certificated'</b>					
<b>Make :</b>					
<b>Model :</b>					
S. No.	Parameter	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	Image sensor	SONY EXMOR- STARVIS Series Size :1/2.8" or 1/3"Progressive Scan CMOS or better			
2	Lens	30x Optical Zoom, Auto Focus			
3	Field of View	3° ~ 55° (Horizontal) 2° ~ 33° (Vertical) 3° ~ 63° (Diagonal)			
4	True Day and Night	Removable IR-cut filter for day & night function			
5	Auto - IRIS	DC-iris / P-iris			
6	Minimum Illumination / Light Sensitivity	0.26 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W)			
7	Pan Speed	0.05° ~ 400°/sec.			
8	Pan Range	360° endless			
9	Tilt Speed	0.05° ~ 400°/sec.			
10	Tilt Range	110°			
11	Preset Locations	256 preset locations, 128 presets per tour			
12	Pan/tilt/zoom Functionalities	128x digital zoom (4x on IE plug-in, 32x built-in)			
		Auto pan mode			

		Auto patrol mode			
13	Compression	H.265, H.264, MJPEG			
14	Maximum Frame Rate	H.265 & H.264: 60 fps @ 1920x1080			
		MJPEG: 30 fps @ 1920x1080			
15	Maximum Streams	4 simultaneous streams			
16	S/N Ratio	50 dB or better			
17	Dynamic Range	100 dB or better			
18	Video Streaming	Adjustable resolution, quality and constant bit rate control; Smart Stream II			
19	Image Settings	Time stamp, text overlay, flip & mirror; Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks (up to 24); Scheduled profile settings, EIS, 3DNR, defog			
20	Audio Capability	Two-way Audio (full duplex)			
21	Compression	G.711, G.726			
22	Interface	External microphone input			
		External line output			
23	Users	Live viewing for up to 10 clients			
24	Supported Protocol	IPv4 & v6, TCP/IP, HTTP, HTTPS, SSL/TLS, QoS, Layer 3 DiffServ, FTP, CIFS/ SMB, SMTP, UPnP™, PPPoE, CoS, SNMPv1/v2c/v3(MIB-II), 802.1X, NTCIP, DNS, DDNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, RTCP, IGMP, ICMP, DHCP, ARP			
25	Interface	10 Base-T/100 BaseTX/1000 BaseTX Ethernet (RJ-45)			
26	ONVIF	Supported			
27	Video Motion Detection	Five-window video motion detection			
28	Auto-Tracking	Auto-tracking on moving object			
29	Alarm Triggers	Motion detection, manual trigger, digital input, periodical trigger, system boot, recording notification, audio detection			
30	Alarm Events	Event notification using digital output, HTTP, SMTP, FTP, NAS server and SD Card			
		File upload via HTTP, SMTP, FTP, NAS server and SD card			

31	Multi-view streaming	Up to 8 individually cropped out view areas			
32	Video Compression	Multi Stream of H.264 & 2 Stream of Motion JPEG individual configurable			
33	Resolutions and frame rates (H.264)	1080P capture mode: Up to 50 fps 50Hz or better			
34	Power Supply	Power over Ethernet IEEE 802.3af, Class 3; max 13W			
35	Remote, Auto Focus support	Yes			
36	Vari-focal Lens	Yes			
37	Edge Storage	Built in SD card slot with support 128 GB with Class 10 speed. 64 GB of memory card needs to be supplied with camera			
38	Security	IEEE 802.1x(No Network Access Without Permission)			
39	ONVIF	ONVIF® Profile S			
40	Operating Temp	-30°C to 55°C			
41	Privacy Mask	Available			
42	Memory	512 MB RAM, 256 MB Flash			
43	Wide Dynamic Range	120 db or better			
44	Digital PTZ	Yes			
45	Intelligent video	Video motion detection, active tampering alarm			
46	IR distance	IR should be for 30 meters distance or more			
47	IR Angle and Intensity adjustment	It should be possible to set the IR beam angle as per the setting of vari-focal lens. Its intensity should change as per camera subject.			
48	Bandwidth Optimization	It should be possible to set the camera at Constant Bit Rate (CBR) within which the camera should work on VBR ( Variable Bit Rate) ,			
49	Camera Casing/Housing	IP66 or IP67- and NEMA 4X-rated casing (polyester polycarbonate blend)			

50	Certifications	EN 55022 Class B, EN 61000-6-1, EN 61000-6-2, EN 50 121-4, IEC 62236-4, EN55024, FCC Part 15 Subpart B Class B, ICES-003 Class B, VCCI Class B, RCM AS/NZS CISPR22 Class B, IEC/EN/UL 60950-1, IEC/EN/UL 60950-22, EN62471, IEC/EN 60529 IP66/IP67, IEC/EN62262 IK08, NEMA 250 type4X, IEC60068-2-1, IEC60068-2-2, IEC60068-2-6, IEC60068-2-27			
51	SMPTE Standard	Specified unit shall meet relevant parts of SMPTE 296M (720p) & SMPTE 274M (1080p)			
52	<b>Manufactured at (Country)</b>	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			
53	MAF	To be provide by OEM on their letter head mentioning concerned Vendor			
54	Manufacturer	Authorization form mandatory			
55	Warranty	5 years from date of supply			
56	<b>Preferred Make</b>	<b>Bosch, Pelco, Vivotek, Sony, AXIS, Pelco, Matrix, Dahua, Dall Meier, Infinova.</b>			

**C3. CCTV Control Room Set up :**

<b>CCTV Control Room Set up</b>		
<b>S. No.</b>	<b>Parameter</b>	<b>Detail Description to be provided by the Bidder</b>
	“The Bidder has to provide the technical details. For ex : Required Space Monitoring TV Control room set up.	

Equipment / Camera manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems

**C4. Network Video Recorder (NVR)**

<b>NVR system</b>				
<b>Make :</b>				
<b>Model :</b>				
<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	The system shall be open platform with integration with at least 60 IP camera leading brands in the world. The client OS platform shall be able to run with Microsoft Windows and MAC platforms. (list of integrated brands to be submitted)			
2	The system shall be Windows/ Linux platform. The OS can be embedded in device without extra installation.			
3	The central Management Server supports unlimited cameras, 3rd party access control systems			
4	Up to 10 independent cameras can be set up as single view			
5	Intelligent Search: Intuitive post-event motion search for suspicious areas on video and post-event 3rd party data keyword search then queries related camera recording. The system can also search events and double clicking query associated recording			
6	Multi-View: Client PC can duplicate the same live view video onto multiple channels and digitally zoom in to see the details of different spots on cloned channels without losing the original live view video			
7	Individual recycle condition (IRC) for each video. Users can assign retention days for each server based on the importance of the critical storage needs			
8	System should support following IVS: (Object Classification, Camera Shake Elimination, Presence (Tripwire), Enter and exit, Appear and disappear, Dwell (loitering), Tailgating, Stop, wrong Direction, missing object detection, foreign object detection, counting)			
9	Multiple event-based and schedule-based recording modes, including continuous record, record on event, manual record, event-based and schedule-based boosting record. It also supports pre-event and post-event recording for continuous record to make sure ensure that the event is			

	captured			
10	The system shall be able to synchronize time with NTP server(Internet Time Server)			
11	The system shall be able to centrally configure all devices and system settings on one interface.			
12	The system shall support system status watchdog and automatically restart the system when abnormal event happened.			
13	The system shall be Server-Client Architecture and centralizes all video data transaction only via server to remote clients.			
14	The system shall include management server, recording server, and client for configuring and viewing			
15	The management server shall be able to centrally manage all servers in the system including configuration, license management, and event monitor.			
16	The system shall support user priority of locking PTZ, Preset point and Patrol control. When PTZ control lock, only user with higher or equal control priority can unlock it.			
17	The system shall be able to view event notification on e-map.			
18	The system shall support volume load balance, enabling user manually distributes cameras recording to different target volumes			
19	The system shall support individual recycle condition for every camera and 3rd party channel DB.			
20	The system shall support up to 4 monitors through client software.			
21	The instant playback shall enable user sync the video to playback instantly.			
22	The playback system shall support up to 100 channel playback simultaneously on one monitor, upto 400 ch live view on single client PC and it should be able to playback from different servers.			
23	The system shall support digital PTZ on recorded video.			
24	The system shall support multiple E-maps layers.			

25	System should readily support perimeter protection system.			
26	Form Factor: Rack-mount 2U			
27	Hard Disk Slot: 8xSATA II or better			
28	Max Capacity per drive: 10TB (Surveillance / enterprise SATA/SAS drives)			
29	Max storage 80TB or better			
30	RAID 0,1, 5, 10			
31	Interface: 2 X USB3.0; 2 X USB2.0 (for mouse or UPS); 1 X eSATA (for DAS); 1 X VGA			
32	Input Power: 100-240V			
33	Power Consumption: 400W			
34	Network File Protocol : NFS should support failover in case of one NVR goes down			
35	Must have features for cascading with the CCTV with the system.			
36	<i>Manufactured at (Country): Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

### C5. LED TV Screen (55 inches)

Screen 1					
Make : LED – SAMSUNG/SONY/Better Version					
Model : 3 to 5 Star Ratings of Branded Company					
S. No.	Parameter	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	Screen Size	LED - 55 inches – ( Qty 04 nos)			
2	Resolution	As per company specification			
3	Aspect Ratio				
4	Brightness				
5	Contrast Ratio (Typical)				
6	Viewing Angle (H/V)	178° / 178°			
7	Response Time	9ms			
8	Direct Lit	Yes			
9	Input	HDMI (2), DVI-D, RGB, Audio			
10	Output	Audio			
11	External Control	S232C in/out, RJ in, IR Receiver, USB			
12	Built-in Speakers	10W + 10W			
13	Without Stand (W x H x D)				

14	<b>Bezel Width</b>	As per company specification			
15	<b>Manufactured at (Country)</b>	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

**C6. LED TV Screen (65 Inches)**

<b>Screen 2</b>					
<b>Make : LED- SAMSUNG/SONY/Better Version</b>					
<b>Model : 3 to 5 Star Ratings of Branded Company.</b>					
<b>S. No.</b>	<b>Parameter</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	<b>Screen Size</b>	LED - 65 inches (Qty – 5 nos)			
2	<b>Resolution</b>	As per company specification			
3	<b>Aspect Ratio</b>				
4	<b>Brightness</b>				
5	<b>Contrast Ratio (Typical)</b>				
6	<b>Viewing Angle (H/V)</b>		178° / 178°		
7	<b>Response Time</b>	9ms			
8	<b>Direct Lit</b>	Yes			
9	<b>Input</b>	HDMI (2), DVI-D, RGB, Audio			
10	<b>Output</b>	Audio			
11	<b>External Control</b>	S232C in/out, RJ in, IR Receiver, USB			
12	<b>Built-in Speakers</b>	10W + 10W			
13	<b>Without Stand (W x H x D)</b>				
14	<b>Bezel Width</b>	As per company specification			
15	<b>Manufactured at (Country)</b>	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

**C7. 1kVA UPS**

1 kva UPS					
<b>Make :</b>					
<b>Model :</b>					
S. No.	Parameter	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	UPS Topology	Double-Conversion			
2	Energy Saving	ECO Mode Efficiency > 95%			
3	Energy Star Qualified	-			
4	Active PFC Compatible	Yes			
5	Voltage	230Vac			
6	Input Voltage Range	160Vac - 300Vac			
7	Input Frequency Range	40Hz - 70Hz			
8	Rated Input current	10A			
9	Input Power Factor	≥0.98			
10	Cold Start	Yes			
11	Plug Type	IEC C14			
12	VA	1000			
13	Watts	900			
14	On Battery Waveform	Sine Wave			
15	On Battery Voltage	208, 220, 230, 240Vac (Configurable)			
16	Automatic Voltage Regulation (AVR)	-			
17	On Battery Frequency	50/60Hz ± 0.5% (Auto-Sensing or Configurable)			
18	Outlets – Total	4			
19	Outlet Type	IEC320 C13			
20	Outlets - Battery & Surge Protected	4			
21	Outlets - Surge-Only Protected	-			
22	Outlets - Widely Spaced	-			
23	Outlets - Critical Load	4			
24	Outlets - Non-Critical Load (NCL)	-			
25	Outlets - ECO Controlled Outlets	-			
26	USB Charging Ports				
27	Rated Power Factor	0.9			
28	Harmonic Distortion	THD < 3% at Linear Load, < 5% at Non- linear Load			

29	Transfer Time	0ms			
30	Runtime at Half Load (min)	15			
31	Runtime at Full Load (min)	5			
32	Battery Type	<b>Sealed Lead-Acid / Tubular Inverter Batteries</b>			
33	Battery Size	12V/7AH			
34	Battery Quantity	3			
35	User Replaceable	-			
36	Hot-Swappable	-			
37	Typical Recharge Time	5 Hours			
38	Smart Battery Management (SBM) Mode	Yes			
39	Extended Battery Module	BPSE36V45A			
40	Replacement Battery Pack	-			
41	Replacement Battery Pack Quantity	-			
42	Surge Suppression	440 Joules			
43	Phone Protection RJ11	Yes			
44	Phone / Network Protection RJ11/RJ45	1-In, 1-Out			
45	LCD Control Panel	Yes			
46	Detachable LCD Control Panel Option	-			
47	HID Compliant USB Port	Yes			
48	Serial Port	Yes			
49	Emergency Power Off (EPO) Port	Yes			
50	Dry Contacts	-			
52	Audible Alarms	Yes			
53	Software	Power Panel® Business Edition			
51	LED Indicators	-			
54	SNMP / HTTP Remote Monitoring	Yes, with optional RMCARD302 / RMCARD303			
55	Form Factor	Tower			
56	Dimensions (WxHxD) (mm.)	151 x 225 x 394			

57	Weight (kg.)	13.1			
58	Installed Rack Height	-			
59	Dimensions (WxHxD) (mm.)	-			
60	Weight (kg.)	-			
61	Power Module Rack Height	-			
62	Dimensions (WxHxD) (mm.)	-			
63	Weight (kg.)	-			
64	Battery Module Rack Height	-			
65	Operating Temperature	32 °F to 104 °F / 0 °C to 40 °C			
66	Operating Humidity	20% ~ 90% non-condensing			
67	Operating Elevation	0-5000 feet (0-1500 meters)			
68	Storage Temperature	-4 °F to 122 °F / -20 °C to 50 °C			
69	Storage Relative Humidity	10% to 90%			
70	Online Thermal Dissipation	342 BTU/hr			
62	Warranty	5 year from OEM			
64	Manufactured at (Country)	<i>Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

### **C8. 9U Rack**

<b>Data Rack</b>				
<b>Make :</b>				
<b>Model :</b>				
<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	IP55 Rack 9U 600x450 mm			
2	2 Pairs of Adjustable 19" Mounting Rails			
3	Power Distribution Strip,6 Socket,5Amp.			
4	Exhaust fan with Filter. Cable Manager.Tray,Mounting Hardware			
5	<i>Manufactured at (Country): Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

**C9. Network Switch [24 Port POE Network Switch (Access Switch)]**

<b>POE Network Switch</b>				
<b>Make :</b>				
<b>Model :</b>				
<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	The switch should support a minimum of 24 nos. 10/100/1000 Ethernet Ports			
2	The switch should support a minimum of 2 SFP+ Uplinks			
3	The switch should support a total of 26 Ports			
4	The switch should support Forwarding bandwidth of 100 Gbps or more			
5	The switch should support Full- duplex Switching bandwidth of 200 Gbps or more			
6	The switch should support 64- Byte Packet Forwarding Rate of 90 Mpps or more			
7	The switch should support a Dual Core CPU			
8	The switch should support 512 MB of DRAM			
9	The switch should support 4096 VLAN IDs			
10	The switch should support 16000 Unicast MAC addresses or more			
11	The Switch should be 1RU			
12	The switch should support Stacking up to 8 switches with dedicated stacking port			
13	Stacking should support 80 Gbps or more of throughput			
14	The switch should support flexible power allocation across all ports			
15	The switch should support 15.4W per port			
16	The switch should support Per port PoE power sensing to measure actual power being drawn			
17	The switch should support IEEE 802.1D Spanning Tree Protocol, IEEE 802.1p, IEEE 802.1Q Trunking, IEEE802.1s Multiple Spanning Tree (MSTP), IEEE 802.1w Rapid Spanning Tree (RSTP)			
18	The switch should support IEEE 802.1x, IEEE 802.1ab (LLDP), IEEE 802.3ad Link Aggregation Control Protocol (LACP)			
19	The switch should support Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors			
20	The switch should support IEEE 802.1Q VLAN encapsulation			

21	The switch should support Centralized VLAN Management. VLANs created on the Core Switches should be propagated automatically			
22	The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge.			
23	The switch should support IGMP filtering			
24	The switch should support discovery of the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.			
25	The switch should support Per- port broadcast storm control to prevent faulty end stations from degrading overall systems performance			
26	The switch should support Voice VLAN to simplify IP telephony installations by keeping voice traffic on a separate VLAN			
27	The switch should support Local Proxy Address Resolution Protocol (ARP) working in conjunction			
28	The switch should support Configurable IGMP Leave Timer			
29	The switch should support IPv4 unicast Static Routing			
30	The switch should support 16 IPv4 Static routes or more			
31	The switch should support diagnostic commands to debug issues			
32	The switch should support system health checks within the switch			
33	The switch should support 4 degress queues per port to enable differentiated management			
34	The switch should support scheduling techniques for Qos			
35	The switch should support Weighted tail drop (WTD) to provide congestion avoidance			
36	The switch should support PoE+ (IEEE 802.3at)			
37	The switch should support Standard 802.1p cos field classification			
38	The switch should support Differentiated services point (DSCP) field classification			
39	The switch should support Control- and Data-plane QoS ACLs			

40	The switch should support Strict priority queuing mechanisms			
41	The switch should support Rate Limiting function to guarantee bandwidth			
42	The switch should support rate limiting based on source and destination IP address			
43	The switch should support rate limiting based on source and destination MAC address			
44	The switch should support rate limiting based on Layer 4 TCP and UDP information			
45	The switch should support availability of up to 256 aggregate or individual polices per port or more.			
46	Switch should support 802.3az for energy efficient Ethernet			
47	The switch should support taking of action based on business rules to reduce power consumption			
48	The switch should support IEEE 802.1x to allow dynamic, port- based security, providing user authentication.			
49	The switch should support Port- based ACLs for Layer 2 interfaces to allow application of security policies on individual switch ports.			
50	The switch should support SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.			
51	The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.			
52	The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.			
53	The switch should support Port security to secure the access to an access or trunk port based on MAC address.			
54	The switch should support Multilevel security on console access to prevent unauthorized users from altering the switch configuration.			
55	The switch should support Private VLAN			
56	The switch should be on the approved list of IPv6 Ready Logo phase II – Host			

57	The switch should support IPv6 unicast Static Routing			
58	The switch should support 16 IPv6 Static routes or more			
59	The switch should support IPv6 MLDv1 & v2 Snooping			
60	The switch should support TACACS+ over IPv6			
61	The switch should support NTPv4 over IPv6			
64	<i>Manufactured at (Country): Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

### C10. Junction box

<b>Junction Box</b>				
<b>Make :</b>				
<b>Model :</b>				
S. No.	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
	IP55, 600X450 mm Out Door Rack with Front Metal Door, 2 Pairs of Adjustable 19" Mounting Rails, Full Powder Coated with Powder Coated with Powder Steel Construction. Power Distribution Strip. 6 Socket, 5 Amp. Exhaust Fan With Filter, Cable Manager, Tray Mounting Hardware.			

### C11. UTP Cable

<b>UTP Cable</b>				
<b>Make :</b>				
<b>Model :</b>				
S. No.	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	Shall be of 4 twisted pairs of 23 AWG solid conductors			
2	Shall support network line speeds up to 1 gigabits per second.			
3	Shall be 4-pair Unshielded twisted pair with a cross filler/ isolator (+), meeting Category 6 tested to 500MHz or more (4 connector channel test report from Third Party like ETL for TIA/TIA 568- C.2 needs to be submitted with Bid).			

4	Should comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet, 100BASE-Tx, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog (broadband, baseband) and digital video and analog and digital (VoIP) voice.			
5	The Category 6 Solution shall fully comply with the link segment specifications for 1000 Base-TX in addition to the ANSI/TIA and ISO/IEC Category 6 requirements.			
6	Shall have the length printed on the outer jacket of the cable.			
7	Shall be RoHS Compliant			
8	Shall be Fire-Retardant, Low-Smoke & Zero-Halogen as per IEC 60332-1, IEC 60332-3-22, IEC61034-2 & IEC 60754-1 respectively. Flame Test report for IEC 60332-3-22 need to be submitted with the bid.			
9	Shall be supplied in Reel of 305 Meters/ 1000 feet packed in Boxes			
10	Shall have minimum 25-Year Extended Product Warranty.			

**\*Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems**

**C12. 2Meter Ethernet patch cord**

2Metre Ethernet patch cord				
<b>Make :</b>				
<b>Model :</b>				
S. No.	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
	<ul style="list-style-type: none"> <li>• LS0H Sheath: CSA FT1, IEC 60332-1, IEC 61034</li> <li>• Terminators: Pre-terminated with WE8W plugs</li> <li>• Standards: RoHS Compliant, Suitable for EIA 568A or 568B wiring RJ45 plug and boot material: Clear polycarbonate</li> <li>• Approved Makes: MOLEX / AMP / SYSTIMAX/D-link</li> </ul>			

**C13. 1meter Ethernet patch cord**

1Metre Ethernet patch cord				
<b>Make :</b>				
<b>Model :</b>				
S. No.	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
	<ul style="list-style-type: none"><li>LS0H Sheath: CSA FT1, IEC 60332-1, IEC 61034</li><li>Terminators: Pre-terminated with WE8W plugs</li><li>Standards: RoHS Compliant, Suitable for EIA 568A or 568B wiring RJ45 plug and boot material: Clear polycarbonate</li><li>Approved Makes: MOLEX / AMP / SYSTIMAX/D-link</li></ul>			

**C14. 24 Port CAT6 Jack Panel**

Jack Panel				
<b>Make :</b>				
<b>Model :</b>				
S. No.	Detail Description	(√) if data sheet enclosed	(√) if Complied as per the specification	Deviation in specification, if any
1	Operating Life: Minimum 750 insertion cycles , Minimum 200 re-terminations			
2	Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Used in : both Category 6 link and channel gigabit Ethernet applications.			
3	Commercial Standards: FCC Subpart F 68.5, IEC-603-7			
4	TIA/EIA-568-B.2-1 Component Compliant ISO 11801 Class E Compliant			
5	ETL Verified for Category 6 Component Compliance Interface Resistance: 20 milliohms.			
6	<i>Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

**C15. Optical Fiber Cable**

<b>Optical Cable</b>				
<b>Make :</b>				
<b>Model :</b>				
<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	Shall be 9μ, 6/24 core Single mode OS2 metallic armored cable as per ISO/IEC- 11801			
2	Shall be able to meet Gigabit & 10 Gigabit Ethernet performance (1000 Base-X) & IEEE 802.3ae (10G Base-X)			
3	Shall be suitable outdoor laying with steel wires embedded in PE Jacket.			
4	Shall be gel filled with loose tube construction			
5	Shall have water blocked construction to prevent water absorption and consequent damages			
6	Optical Fibers should be in multi tube type of cables			
7	Fiber cable shall be RoHS Compliant.			
8	The cable type shall be suitable for indoor/outdoor applications			
9	Tensile load should be 3000 Newton/meter or higher and crush resistance should be 3000 Newton/meter or higher			
10	The attenuation @ 1310 nm shall be ≤ 0.36 dB/Km and @ 1550 nm shall be ≤ 0.22 dB/Km			
11	Shall have a central FRP rod as a strength member. Shall also have WATER BLOCKING E- GLASS.			
12	Shall be multi tube construction with maximum 6 fibers in each tube.			
13	Shall have minimum 25-Year Extended Product Warranty.			

**C16. Workstation for Management / Client Macine**

<b>Workstation for Management / Client Machine</b>				
<b>Make :</b>				
<b>Model :</b>				
<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>(√) if Complied as per the specification</b>	<b>Deviation in specification, if any</b>
1	OS Ubuntu 15.10 or windows or latest			
2	Embedded App Client & Matrix software already loaded on it. (User to define on 1st time log-in UI)			
3	Storage 32G eMMC embeded, 1 x mSATA slot, Front Panel - 4 x USB 3.0, 1 x SD Card Slot, 1 x Line-in/MIC,HDMI x 2, DP x 1			
4	Power AC 100~240v, 12~19V, DC-IN 65W			
5	1 Gigabit LAN			
6	Operational Temp System 0~45C, Board 0~60C			
7	Keyboard & Mouse required			
8	<i>Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems</i>			

**Enclose the data sheets / Technical brochure of the item proposed against BOQ items. If the same was not found enclosed, technical scrutiny shall be done on the basis of available documents. Hence tenderer is required to submit data sheet/ technical brochure of OEM for verification of technical parameters.**

**C17. Other required items for the installation and commission of CCTV system**  
**(to be provided by the Bidder) Please provide the same in separate rows.**

<b>S. No.</b>	<b>Detail Description</b>	<b>(√) if data sheet enclosed</b>	<b>Make</b>	<b>Model</b>
1.				
2.				
3.				
....				

## **Section VI Scope of Work & Schedule of Requirements**

### **5. Terms & Conditions for the scope of work & CCTV Surveillenince System**

- The contractor has to ensure stock of sufficient spares and accessories as considered necessary for immediate attending to breakdown, if any. The contractor shall maintain stock of spare parts at his nearest service center.
- The contractor shall ensure that spare parts consumed are replaced promptly within 24 hours.
- The spare parts used for replacement shall be of same make/ quality as installed in new system with warranty or guarantee of one-year period.
- The contractor shall be responsible for carrying out preventive maintenance of all the installations and periodical checking as prescribed by the OEMs, IS codes/IE rules, maintenance manuals /CPWD manuals & as prescribed. Record of such inspection and preventive maintenance carried out by the contractor shall be maintained in a separate register and shall be got verified by the officials / authorities of NIT-Tiruchirappalli regularly. A list of periodical checking, servicing & maintenance is given for guidance & compliance of the contractor.
- Relevant maintenance manuals prescribed by the OEMs, IS codes/IE rules with up to date amendments shall have to be kept at site by the contractor for ready reference.
- The contractor shall arrange to render efficient preventive service. However, in case he fails to maintain the services to the satisfaction of the officials / authorities of NIT-Tiruchirappalli and if the institute has to incur any expenditure on that account, the expenditure thus incurred will be recovered from the contractor. Proper records shall be maintained for all the above. In case any complaint is pending because of any reason beyond control of the contractor, he shall intimate the same to the officials / authorities of NIT-Tiruchirappalli by phone or by special messenger within one hour.
- Proper strength of Mechanic / Wireman / Helper to be engaged at site by the contractor as and when required for servicing & rectification of fault etc. of the installations. No extra payment will be made for the same, and no claim shall be entertained by NIT-Tiruchirappalli for the same.
- All the staff engaged in the comprehensive maintenance should be in tidy uniform.
- Contractor should have his own Tools & Plants, Helmets, including Hand Gloves, First Aid Box and other safety equipment's in good working condition for his working staff.
- The contractor is required to follow the CPWD Safety code as prescribed in the **General conditions of the contract for CPWD works 2014, with correction slips up to the last date of submission of bids.**
- In case of any accident during the maintenance of the equipment leading to injuries, damages to human being, equipment and /or loss of life, the contractor shall be fully responsible for settling all claims and indemnify the institute for making claims arising out of such accidents.
- Contractor himself shall be fully responsible for any accident/causality of his staff if occurs due to electrical fault or negligence of his staff or due to any other reason during duty hours. The institute will not be responsible in any way for the same and no extra payment/claim/compensation shall be made to the contractor by the NIT Tiruchirappalli institute.
- The contractor must arrange the life and medical insurance of the workers on duty. The contractor will be fully responsible for complying labour laws as per the Govt. rules and regulations.
- Contractor will be responsible for taking all sorts of safety measures for his workers during

duty hours to avoid any type of accidents.

- Contractor shall follow all the labour laws and will be responsible for compliance of minimum labour wages. Contractor will submit the proof of the labour payment to the officials / authorities of NIT-Tiruchirappalli.
- Unauthorized person should not be allowed to enter in the campus without prior permission of the competent authorities of NIT-Tiruchirappalli and if such irregularities are noticed suitable action will be taken by the institute against the contractor.
- The contractor shall maintain service log book, records containing maintenance reports duly countersigned by the officials / authorities of NIT-Tiruchirappalli.
- The system is a sophisticated system. Therefore, the contractor must have trained personnel equipped with all the testing/ repairing facilities.
- The institute shall not be responsible for any accident to the staff, technicians, engineers engaged by the contractor for the comprehensive maintenance.
- Any damage/mis-happenings/legal proceeding/compensation occurred during the execution of the contract shall be borne by the contractor and the institute shall not be responsible for any such occurrence.
- The contractor or his employees shall have no claim over the institute.
- Contractor will have to arrange his own new good quality office furniture for his staff on duty. No furniture and electrical fixtures/ accessories will be given by the institute.
- At the end of the maintenance period, the contractor shall demonstrate satisfactory testing and operation of the System.
- It shall be the responsibility of the contractor to maintain and hand over back the installation covered under the scope of the work after completion of work in good working condition, as required.

## **Section VI Scope of Work & Schedule of Requirements**

### **6. TERMS OF PAYMENT**

- Payment shall be made as per quoted rates and after satisfactory completion of the work. Payment will be released on quarterly basis for the CAMC.
- Taxes shall be deducted as per the Government norms.

## **Section VI Scope of Work & Schedule of Requirements**

### **7. HANDING OVER OF SYSTEM FOR MAINTENANCE CONTRACT SERVICES**

The contractor shall ensure that the system is in proper working conditions at the time of handing over on expiry of contract period.

## Section VI Scope of Work & Schedule of Requirements

### 8. List of approved make

S. No.	Material	Make / Branded Name
1	CC TV Camera (preferred)	<b>Bosch, Pelco, Vivotek, Sony, AXIS, Pelco, Matrix, HIK Vision, Dahua, Dall Meier, Infinova.</b>
2	64 channel NVR	NUUO / MILESTONE / GENETIC
3	Monitor screen 85"/ 55"	SONY/ LG/ SAMSUNG/ PANASONIC/ AOC
4.	UPS	RIELLO/ETON/Delta/Schneider/ Vertiv
5.	Rack	APC PRESIDENT/RITTAL/Panduit/ Vertiv/ Legrand
6.	POE switch	CISCO/HP /JUNIPER/ Extreme
7.	Junction Box	Sintex/ Hensel /Schneider/ Legrand
8.	LAN cable	Molex/ AMP/ SYSTIMAX/ Panduit / Legrand
9.	Ethernet patch cord	Molex/ AMP/ SYSTIMAX/ Panduit / Legrand
10.	Jack panel	Molex/ AMP/ SYSTIMAX/ Panduit / Legrand
11.	OFC cable	Molex/ AMP/ SYSTIMAX/ Panduit / Legrand
12.	PVC cable	RR Kable/Finolex/Universal Satna /Polycab / Ravin
13.	PVC conduit	AKG/BEC/POLYCAB/SUN/PRECISION
14.	Cable Tray	Profab/BSPL/RICO/SLOTCO
15.	PVC Casing / Caping	LEGRAND/HENSEL/L&T/POLYCAB
16.	HDPE pipe	Duraline/Reliance/Hallmark/Shankar technologies(India)

17.	SFP Module	CISCO/HP/JUNIPER/ Extreme
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## Section VI Scope of Work & Schedule of Requirements

### 9. Site Inspection

Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their offer. Bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, access facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of bid by a bidder implies that he has read the Bid documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. (if any) will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

The contractor carrying out this work shall strictly abide by the State / regulations as well as any security regulations imposed by the Department/Police Authorities/ Local Authorities, from time to time, regarding trans-shipment of equipment's, operations, security etc. wherever applicable.

#### A. For TPDemonstration:

The Bidder may visit the NIT-Tiruchirappali Campus for the technical feasibility and survey of the CCTV coverage area.

Bidders can visit the NIT-Tiruchirappali **sites** before quoting to understand the requirements five days before the Pre Bid meeting date. (11 Feb to 14 Feb 2019).

The bidders can raise their queries /doubts by submitting in writing to the security office e mail id, under the subject: CCTV TENDER CLARIFICATIONS. Also giving the full details of the company and its representative profile, who will be participating in the Pre bid meeting.

The bidders are requested to raise their doubts/clarification only from 11 Feb to 14 Feb 2019 (1800 hrs). No clarifications will be entertained either telephonically or by e mail on or before the above mentioned dates. The clarification submitted by the bidders will be replied only at the pre bid meeting (To be held on 15 Feb 2019 at 1500 hrs). Bidders are advised to be present at the pre bid meeting.

#### B. For Site Visit and Surveying Request from the Bidders

The **REQUEST** for the **SITE VISIT AND SURVEY BY THE BIDDERS** should be sent in advance to the security office mail id under the Subject; **CCTV VISIT BY AGENCIES** and also giving in details the visitors and the company's profile.

**SITE VISIT BY THE BIDDERS AT NITT CAMPUS DATE : 11 Feb to 14 Feb 2019.**

The email of security office is : [securityoffice@nitt.edu](mailto:securityoffice@nitt.edu)  
NIT-Tiruchirappali Land Line Office No: **0431 – 2503901 / Mobile : 9486001153**

**C. TPC Demonstartion Equipment as per bid proposal:**

S. No	Equipment Description	Quantity (Nos)	Quantity
1	2MP PTZ SPEED DOME CAMERA – 30X OPTICAL ZOOM	Nos	01
2	2MP Bullet Camera with H.265 Compression	Nos	01
3	8 / 16 channel NVR	Nos	01
4	8 / 24 port PoE switch	Nos	01
5	Workstation with client software configured for viewing and replay for multiple users (preferably as per proposal)	Nos	02
6	Minimum Display (preferably as per proposal)	Nos	02
7	Other items as per site requirement by the Bidder	Set	01

**NOTE:**

- The place & date of TPD shall be intimated to the bidders immediately after opening of TQ bids so as to make necessary arrangements. The TPD location shall be at NIT Tiruchirappalli
- The Bidder responsibility to arrange the necessary equipment / components that are required for the completion of TPD. The above quantity of items for demo is only indicative; however, bidder should provide minimum quantities required for TPD.
- The proposed solution should include the quality aspects like user friendliness, secure, interoperability, modifiability, integrity and extensibility, maintainability, scalability and modularity etc.,
- It is bidder's responsibility to handover the recorded video stream of complete Demo to the Evaluation Committee at the end of TPD.
- The Evaluation Committee may provide use cases to the qualified bidders at the time of TPD, in addition to the bidder's use cases.
- The bidding processe will be in two stage bidding
- Only those who qualify for the technical stage, will be called for technical presentation & demonstration.
- THE TPD EQUIPMENTS WILL BE THE SAME, THAT WILL BE QUOTED FOR THE CCTV TENDER AND NO DEVIATION WILL ALLOWED IN TERMS OF THE EQUIPMENT, IF FOUND ANY CHANGES AT LATER STAGE, THE WHOLE TENDER PROCESSES WILL BE CANCELLED.

The best of the technical presentation and demonstration will set as the standard for qualifying the bid. The bidder shall submit the detailed documentation of security system including cabling layout, camera location and bill of material etc. The vendor shall upload all related documents in Softcopy. The Bidder should also arrange the following components as quoted in the proposal for the Technical presentation and demonstration setup to showcase the features as per evaluation criteria in addition to committee requirement. The make & model should be same as per the bid

proposal unless & otherwise specified, this means if the model numbers of all components do not meet as per the proposal, the bid is liable for rejection.

- **The Original Equipment Manufacturer (OEM) must be ISO 9001 :2008 & BIS certified company. Not manufactured in china or the parent company should not be from China/Hong Kong & assembled/manufactured in India. *Manufactured at (Country) Equipment manufactured in China/Hong Kong registered firms/OEMs will not be considered for the present CCTV systems***
- **OEM & Company not certified by “BIS” for their CCTV product are not eligible for this CCTV Tender**

## **Section VI Scope of Work & Schedule of Requirements**

### **10. Method of Selection & Technical Evaluation Criteria**

- Successful bidder will be evaluated described below:
- The Technical Evaluation would be based on the experience of the bidder, solution proposed and the Technical presentation & demonstration. The minimum qualifying marks for Technical Evaluation would be **80%** of the Technical Weightage marks, as per the Technical Evaluation marks detailed below.
- The Commercial Evaluation would be based on the cost for the items and services provided by the bidder in the Commercial Bid including the cost of maintenance. The bidder is required to quote the Total cost for AMC cost post warranty for five years (Year-1+year-2+year-3....). The bidder should include the cost of all Spares, Accessories, Services, Software etc., in their commercial bid for maintaining the entire system during warranty and post warranty period.

Technical Evaluation Criteria:

S. No	Evaluation Criteria	Measurement Criteria	Max. Score
1	<p><b>Past Experience:</b></p> <p>i) Bidder should have experience in execution of minimum Five (5) or more projects with a combined quantity of 500 Nos IP HD CCTV cameras installations for any PSU/ State/ Central Govt./ Departments from <b>FY 2016/17-17/18, till the date of Bid calling.</b></p> <p><b>*Attach Documents / Upload documents</b></p>	<p><i>Project with combined quantity (Nos) of HD cameras from minimum 3 projects :</i></p> <ul style="list-style-type: none"> <li>➤ 501Nos &amp;Above – 30 Marks</li> <li>➤ 400Nos &amp;&lt;300Nos– 20Marks</li> <li>➤ 250 Nos &amp;&lt; 300 Nos – 10Marks</li> </ul>	30
2	<p><b>Approvals / certifications of International standards:</b></p> <p>[Eg. UL/EN/IS, IK10, EN55022 CE, FCC &amp; any additional international certifications.]</p> <p><b>*Attach Documents / Upload documents</b></p>	1 Marks for each certifications (max. 5 latest International standard certification will be counted)	05
3	<p>Annual turnovers more than 18 crores per year &amp; for the last 3 years total ? (2015/16-16/17 &amp; 17/18 up to March 31)</p> <p><b>*Attach Documents / Upload documents</b></p>	<p>36 Crores-5 Marks 72 Crores-10 Marks 144 Crores-20 Marks</p>	20
4	<p>CCTV service provided in an area covering more than:</p> <p><b>**Attach Documents / Upload documents</b></p>	<p>100 Acre-10 Marks 200 Acre-20 Marks 500 Acre-30 Marks</p>	30
5	<p>OEM Service center in: Tiruchirappalli-10 Marks Other Than Tiruchirappalli-5 Marks</p> <p><b>Attach Documents / Upload documents</b></p>	Bidder need to specify the same in OEM Company letter head.	15
*6	<p><b>Technical Presentation:</b> Technical Presentation on features &amp; functionalities of equipment and Project implementation Plan / Methodology. All support documents for compliance of technical specifications need to be submitted.</p>	<ul style="list-style-type: none"> <li>➤ Network Designs &amp; Cable Management</li> <li>➤ Project implementation &amp; Management process</li> <li>➤ Quality Management</li> <li>➤ Support &amp; Maintenance approach</li> <li>➤ Risk Mitigation Plan</li> <li>➤ Training to Departmental staff</li> <li>➤ Highlights of Executed Projects(150 &amp; above Camera)</li> </ul>	NIL
*7	<p><b>Technical Demonstration:</b> Proof of Concept Implementation (POCI)</p>	<ul style="list-style-type: none"> <li>➤ End-to-end CCTV System features</li> <li>➤ NVR features</li> <li>➤ PoE Switch features</li> </ul>	NIL

		<ul style="list-style-type: none"> <li>➤ Camera features</li> <li>➤ Recording &amp; Replay features</li> <li>➤ NVMS features</li> <li>➤ Demonstration of CCTV solution</li> <li>➤ CCTV Monitoring tools provided in the proposed solution.</li> <li>➤ Online &amp; Mobile App. features</li> </ul>	
<b>Total Marks for the Technical Evaluation:</b>			100

\*Sl no : 6 & 7 will be applicable only for the technical qualified bidders.

**Note-I:**

- The prospective bidders shall be ready to give the Technical Presentation and demonstration of proposed solution using the items proposed in their bid, from the due date of submission of bids in e-procurement portal. Schedule and venue will be communicated.(Prefereably Second or third week of March 2019)
- NITT reserves the right to fix the minimum marks.
- The Financial Bids (BoQ) will be uploaded in the E-procurement portal after the technical evaluation, and technical presentation & demonstration of the technically qualified bidders as per the technical evaluation crietria. The technically qualified bidders will be informed through email.

**Note-II:**

- The bidder should upload all the required documents with clear visibility, avoid missing documents and avoid bidding mistakes. In such cases, NIT TIRUCHIRAPPALLI reserves right in seeking clarification from the bidder and may disqualify the bidder for the bidding mistakes, missing documents and for the documents that are not clear.

**Technical Presentation and Demonstration Setup:**

- The Technical presentation and demonstration shall be evaluated by the Evaluation Committee consisting of members of NIT Tiruchirappalli.

**Part-3 Contract**  
**Section VII General Conditions of Contract**  
**Table of Clauses**

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<b>Section VII General Conditions of Contract</b>	
<b>1</b>	<b>Definitions:</b> The following words and expressions shall have the meanings hereby assigned to them:
a	“NITT” means National Institute of Technology, Tiruchirappalli established under societies Registration Act XXVII of 1975.
b	“Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
c	“Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
d	“Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
e	“Day” means calendar day.
f	“Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
g	“GCC” means the General Conditions of Contract.
h	“Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
i	“The Project Site,” term where applicable, means the place of work named in the Special Conditions of Contract (SCC).
j	“Purchaser” means faculty, department and other entities of the competent for purchasing Goods and Services, as specified in the SCC.
k	“Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
l	“SCC” means the Special Conditions of Contract.
m	“Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
n	“Supplier” means the person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
o	“The Project Site,” where applicable, means the place named in the SCC.

<b>2</b>	<b>Contract Documents:</b> Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
<b>3</b>	<b>Corrupt and Fraudulent Practices:</b> The Institute requires compliance with its policy against the corrupt and fraudulent practices as set forth Section- V The Purchaser requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.
<b>4</b>	<b>Interpretation</b>
4.1	The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
4.2	<b>Amendment</b> No amendment or other variation of the Contract shall be valid unless it is reduced to writing, dated, expressly refers to the Contract, and is signed by the duly authorized representative of each party thereto.
4.3	<b>Non waiver</b>
	<b>a</b> Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
	<b>b</b> Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
4.4	<b>Severability:</b> If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
<b>5</b>	<b>5.1 Language:</b> The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in any language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, such translation shall govern.
	<b>5.2</b> The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.
<b>6</b>	<b>Joint Venture, Consortium or Association:</b> If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

<b>7</b>	7.1	<b>Eligibility:</b> The Bidder should not have been declared insolvent by the competent court.
	7.2	The Bidder should not be disqualified for contract under the law of the India.
	7.3	The Bidder should not be adjudged defaulter of Tax Payment under Income Tax Law or any other Law for the time being in-force.
	7.4	The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. Nationality must be disclosed by the supplier
	7.5	All Goods and Related Services to be supplied under the Contract shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.
<b>8</b>	8.1	<b>Notices</b> Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.
	8.2	A notice shall be effective when delivered or on the notice’s effective date, whichever is later.
<b>9</b>	9.1	<b>Governing Law:</b> The Contract shall be governed by and interpreted in accordance with the laws of India, unless otherwise specified in the SCC.
	9.2	Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in India when
	a	Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in India when
	b	by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, India prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
<b>10</b>	10.1	<b>Settlement of Disputes</b> The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
	10.2	If the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to settle the issue by arbitration, as hereinafter provided, as to the matter in dispute, no arbitration in respect of the matter be commenced unless such notice is given in accordance with this Clause for the final settlement of the matter. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
	10.3	All questions, disputes and differences arising shall be referred by the The Director, National Institute of Technology, Tiruchirappalli to the sole arbitrator for arbitration under the provision of the Arbitrations and Conciliation Act, 1996.
<b>11</b>		<b>Obligations During Arbitrations</b> Notwithstanding any reference to arbitration in Clause 10,

		a	the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
		b	the Purchaser shall pay any amount due to the Supplier.
<b>12</b>		<b>Scope of Supply</b> The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.	
<b>13</b>		<b>Delivery and Documents</b> Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.	
<b>14</b>		<b>Suppliers Responsibilities</b> The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.	
<b>15</b>		<b>Contract Price</b> Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.	
<b>16</b>	16.1	<b>Terms of Payment</b> Ordinarily, payments for services rendered or supplies made shall be released only after the services have been rendered or supplies appropriate to the requirement made. However, in following cases advance payments may be made if specified in SCC:	
		a	Advance payment demanded by firms holding maintenance contracts for servicing of Air-conditioners, computers, other costly equipment, etc.
		b	Advance payment demanded by firms against fabrication contracts, turnkey contracts etc.
		c	Such advance payment should not exceed the following limits: - Thirty percent of the contract value to private firms;
		d	Forty percent of the contract value to a State or central Government agency or a Public Sector Undertaking; or
		e	In case of maintenance contract, the amount should not exceed the amount payable for six months under the contract.
	16.2	The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfilment of all other obligations stipulated in the Contract.	
	16.3	Payments shall be made promptly by the Purchaser, within ninety (90) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it	
	16.4	The currencies in which payment shall be made to the supplier under this contract shall be Indian currency unless otherwise agreed.	
<b>17</b>	17.1	<b>Taxes and Duties</b> For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.	

	17.2	For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
	17.3	If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent or country or origin, the supplies shall provide benefit from any such tax sowing to the purchaser.
	17.4	<b>GST Concession for Items Purchased for Research Purpose</b> If the item/product purchased for research purpose the institution has a GST exemption of 5% as per vide no:45/2017 and 47/2017
<b>18</b>	18.1	<b>Performance Security:</b> If required as specified in the SCC, the Supplier shall, within twenty-one (21) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the SCC
	18.2	The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
	18.3	As specified in the SCC, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Purchaser; and shall be in one of the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.
	18.4	Performance security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligation.
	18.5	Bid security shall be refunded to the successful bidder within 30 days of receipt of performance security.
<b>19</b>		<b>Copyright</b> The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.
<b>20</b>	20.1	<b>Confidential Information</b> The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.
	20.2	The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.
	20.3	The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
	a	Now or hereafter enters the public domain through no fault of that party;

		b	can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
		c	otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
	20.4		The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
	20.5		The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.
<b>21</b>	21.1		<b>Subcontracting</b> The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later on shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
	21.2		Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.
<b>22</b>	22.2		<b>Specifications and Standards</b> Technical Specifications and Drawings
		a	The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section-VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin or India.
		b	Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.
<b>23</b>	23.1		<b>Packaging and Documents</b> The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
	23.2		The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.
<b>24</b>			<b>Insurance</b> Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

25	25.1	<p><b>Transportation and Incidental Services</b> The Supplier is required under the Contract to transport the Goods to a specified place of final destination within India, defined as the Project Site, transport to such place of destination in India, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price”; or any other agreed upon trade terms (specify the respective responsibilities of the Purchaser and the Supplier)</p>
	25.2	The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
	a	performance or supervision of on-site assembly and/or start up of the supplied Goods;
	b	furnishing of tools required for assembly and/or maintenance of the supplied Goods;
	c	furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
	d	performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
	e	training of the Purchaser’s personnel, at the Supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.
	25.3	Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services otherwise shall be at the cost of suppliers.
26	26.1	<p><b>Inspections and Tests</b> The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC.</p>
	26.2	The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods’ final destination, or in another place in India as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
	26.3	The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
	26.4	Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
	26.5	The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier’s reasonable costs and

		expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
	26.6	The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
	26.7	The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier, if permitted by the purchaser, shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.
<b>27</b>		<b>Liquidated Damages</b> Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 33.
<b>28</b>	28.1	<b>Warranty</b> The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
	28.2	Subject to Sub-Clause 22.1(b) of GCC, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
	28.3	Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or warranty period mentioned by supplier whichever period concludes later unless mutually agreed.
	28.4	The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
	28.5	Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
	28.6	If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29	29.1	<p><b>Patent Indemnity</b> The Supplier shall, subject to the Purchaser’s compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered.</p>
	29.2	<p>If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.</p>
	29.3	<p>The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.</p>
30	30.1	<p><b>Force Majeure</b> For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, wars or revolutions ,fires, floods, epidemics, quarantine restrictions, and freight embargoes.</p>
	30.2	<p>If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably possible, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.</p>
	30.3	<p>The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it’s delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.</p>
31	31.1	<p><b>Change Orders and Contract Amendments</b> The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:</p>
	a	<p>drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;</p>
	b	<p>the method of shipment or packing;</p>
	c	<p>the place of delivery; and</p>
	d	<p>the Related Services to be provided by the Supplier.</p>
32	32.1	<p><b>Extensions of Time</b> If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier’s notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier’s time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.</p>

	32.2	Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.
<b>33</b>	33.1	<b>Termination for Default</b> The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
	a	if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 32;
	b	if the Supplier fails to perform any other obligation under the Contract; or
	c	if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract
		In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 33.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.
	33.2	<b>Termination for Insolvency</b> The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.
	33.3	<b>Termination for Convenience</b>
	a	The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
	b	The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect : (i) to have any portion completed and delivered at the Contract terms and prices ; and/or (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.
<b>34</b>		<b>Assignment</b> Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

## Section VIII Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC Clause Ref. No.	SCC
<b>GCC 1.1 (i)</b>	The Purchaser's country is: <b>India.</b>
<b>GCC 1.1 (k)</b>	The Purchaser is: <b>THE DIRECTOR, NIT TIRUCHIRAPPALLI</b> <b>KIND ATTENTION TO : Security Officer, Security Office,National Institute of Technology</b>
<b>GCC 1.1 (j)</b>	The Project Site(s)/Final Destination(s) is/are: <b>Security Office,National Institute of Technology, NIT TIRUCHIRAPPALLI.</b>
<b>GCC 5.1</b>	The language shall be: <b>English</b>
<b>GCC 8.1</b>	For notices, the Purchaser's address shall be : Attention : Security Officer Street Address : Security Office,National Institute of Technology Floor/ Room number : - City : TIRUCHARAPPALLI ZIP Code : 6 2 0 0 1 5 Country : <b>India</b> Phone : 0 4 3 1 - 2 5 0 3 9 0 1 / Mobile : 9 4 8 6 0 0 1 1 5 3 Electronic mail address : <b>securityoffice@nitt.edu</b>
<b>GCC 9.1</b>	The governing law shall be the <b>law of India.</b>
<b>GCC 10.2</b>	The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows : <b><i>Contracts with Supplier for arbitral proceeding</i></b> In the case of a dispute between the Purchaser and a Supplier, the dispute shall be referred to adjudication or arbitration in accordance with the laws of India by the arbitrator appointed by The Director,NITT, unless otherwise agreed.
<b>GCC 13.1</b>	Details of Shipping and other Documents to be furnished by the Supplier are: (i) An airway bill (ii) Insurance Certificate, (iii) Manufacturer's or Supplier's Warranty Certificate, (iv) Inspection Certificate issued by nominated inspection agency, (v) Supplier's factory shipping details etc. (vi) The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
<b>GCC 15.1</b>	The prices charged for the Goods supplied and the related Services performed <b>shall not</b> be adjustable.
<b>GCC 16.1</b>	GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows : <b>Payment for Goods supplied from abroad :</b> Payment of foreign currency portion shall be made in Indian Rupees in the following manner :

	<p>(i) <b>On Shipment</b> : Ninety (90%) percent of the Contract Price of the Goods shipped shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country, upon receiving equipment in good condition and documents specified in GCC Clause 13.1 under Section-VII.</p> <p>(ii) <b>On Acceptance</b> : Remaining (10%) percent of the Contract Price of Equipment received shall be paid within <b>thirty (30) days</b> of receipt of the equipment upon submission of claim supported by the acceptance certificate issued by the Purchaser by bank draft/wire transfer.</p> <p>Payment of local currency portion shall be made in <b>Indian Rupees</b> within <b>thirty (30) days</b> of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.</p> <p><b>Payment for Goods and Services supplied from within India :</b> Payment for Goods and Services supplied from within India shall be made in <b>Indian Rupees</b>, as follows :</p> <p>(i) <b>On Delivery, Acceptance and Installation and Commissioning</b> : Hundred (100%) percent of the Contract Price shall be paid on receipt of the Goods in good conditions, acceptance and satisfactory installation &amp; commissioning certificate provided by the Purchase Initiator. and acceptance certificate for satisfactory installation and functioning.</p>
<b>GCC 18.1</b>	A Performance Security <b>shall be required @ 5% of contract price.</b>
<b>GCC 18.3</b>	If required, the Performance Security shall be in the form of : <b>Bank Guarantee/Bank Deposit Receipt/Demand Draft</b> If required, the Performance security shall be denominated in <b>Indian Rupees.</b>
<b>GCC 23.2</b>	The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract.
<b>GCC 24.1</b>	The insurance coverage shall be as specified in the <b>Incoterms.</b> If not in accordance with <b>Incoterms</b> , insurance shall be as follows: <b>NA</b>
<b>GCC 25.1</b>	Responsibility for transportation of the Goods shall be as specified in the <b>Incoterms.</b> If not in accordance with <b>Incoterms</b> , responsibility for transportations shall be as follows: <b>NA</b>
<b>GCC 25.2</b>	Incidental services to be provided are: Selected services covered under GCC Clause 25.2 and/or other should be specified with the desired features. The price quoted in the bid price or agreed with the selected Supplier shall be included in the Contract Price.
<b>GCC 26.1</b>	The inspections and tests shall be: Equipment should be installed at site by designated engineer of the firm. Demonstration should be made to the satisfaction of the P.I. At least four free visits should be made by the engineer during the first year after installation to clarify and rectify any doubts or problems as may be faced by the user.
<b>GCC 26.2</b>	The Inspections and tests shall be conducted at the Department where the equipment is installed. For the rest please refer to GCC 26.1.
<b>GCC 27.1</b>	The liquidated damage shall be: <b>1%</b> per week
<b>GCC 27.1</b>	The maximum amount of liquidated damages shall be: <b>10%</b>
<b>GCC 28.3</b>	The period of validity of the Warranty shall be <b>60 months</b> from date of acceptance/satisfactory installation of the equipment. For purposes of the Warranty, the place(s) of final destination(s) shall be the Department where the equipment is installed.

	<p>The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract (<b>if any</b>). If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:</p> <p>(a) make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4, <b>or</b></p> <p>(b) pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be <b>1% per week</b> of actual value of the equipment (maximum 10%).</p>
<b>GCC 28.5</b>	The period for repair or replacement shall be: <b>10 days</b>

NIT, Tiruchirappalli

**Part-4**  
**Bidding Forms & Contract Forms**

NIT, Tiruchirappalli

## Section IX : Bidding Forms

### Table of Forms

1.	Tender Form (Techno commercial un-priced Bid)
2.	Tender Form (Price Bid)
3.	Bidder Information Form
4.	Manufacturer's Authorization
5.	EMD Returning Form
6.	Mandate Form For Electronic Fund Transfer/RTGS Transfer

NIT, Tiruchirappalli

## (i) TenderForm

(Techno commercial un-priced Bid)

(On the letter head of the firm submitting the bid)

Tender No. ....

To

The \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dear Sir,

1. I/We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders;
2. I/We meet the eligibility requirements and have no conflict of interest;
3. I/We have not been suspended nor declared ineligible in India;
4. I/We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*;
5. I/We offer to supply the items as listed in the schedule to this tender hereto/portion thereof as you may specify in the acceptance of Tender at the price given in the said Schedule and agree to hold this offer open for a period of 120 days from the date of opening of the tender.
6. I/we shall be bound by a communication of acceptance issued by you.
7. I/We have understood the Instruction to bidders and Conditions of Contract in the form as enclosed with the invitation to the tender and have thoroughly examined the specifications quoted in the Schedule hereto and am/are fully aware of the nature of the goods required and my/our offer is to supply the goods strictly in accordance with the specifications and requirements.
8. A crossed Bank Draft in favor of the Director, National Institute of Technology, Tiruchirappalli for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) as Earnest Money is enclosed. The Draft is drawn on \_\_\_\_\_ Bank payable at Tiruchirappalli.
9. The following have been added to form part of this tender.
  - (a) Samples of items quoted for, as per instructions provided in the schedule of requirement.
  - (b) Schedule of requirements, quoting the make only duly signed and stamped. (without indicating price)
  - (c) Income Tax Return.

- (d) Copy of last audited balancesheet.
  - (e) Copy of Valid GST/TAN/TIN.
  - (f) Copy of relevant major purchase orders valuing more than Rs.(\_\_\_\_\_) estimated cost/- executed during last two years for Govt. Depts., PSUs & Central Autonomous bodies..
  - (g) Proof of manufacturing Unit, dealership certificate/general ordersuppliers.
  - (h) Statement of deviations from financial terms & conditions, if any.
  - (i) Any other enclosure. (Please give details)
10. We undertake to execute all orders which have been placed to meet emergent requirements on priority basis.
11. Certified that the bidder is:
- (a) A sole proprietorship firm and the person signing the bid document is the sole proprietor / constituted attorney of the sole proprietor,
- Or**
- (b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.
- Or**
- (c) A company and the person signing the document is the constituted attorney.
- (NOTE: Delete whatever is not applicable. All corrections/deletions should invariable be duly attested by the person authorized to sign the biddocument).**
12. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.
13. If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
14. We are not participating, as a Bidder or as a sub contractor, in more than one bid in this bidding process, other than alternative bids submitted;
15. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption

Name of the Bidder*	:	
Name of the person duly authorized to sign the Bid on behalf of the Bidder**	:	
Title of the person signing the Bid	:	
Signature of the person named above	:	
Date signed	:	

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.

Yours faithfully,

(Signature of bidder)

Dated this day of \_\_\_\_\_

Address: .....

.....

.....

.....

Telephone No.: \_\_\_\_\_

E-mail \_\_\_\_\_

Company seal

## Tender Form

(Priced Bid)

(On the letter head of the firm submitting the bid document)

To

The \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Ref: Tender No.....Dated: .....

Sir,

Having examined the bidding documents and having submitted the techno commercial unpriced bid for the same, we, the undersigned, hereby submit the priced bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

1. We hereby offer to supply the Goods/Services at the prices and rates mentioned in the enclosed schedule of requirement.
2. We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule of requirement and that we shall perform all the incidental services.
3. The prices quoted are inclusive of all charges net F.O.R NITT. We enclose herewith the complete Financial Bid as required by you. This includes:
  - a. Price Schedule (Bill of Quantity-BOQ).
  - b. Statement of deviations from financial terms and conditions.
4. We agree to abide by our offer for a period of 120 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.
5. We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviations are only those mentioned in the statement of deviations from financial terms and conditions.
6. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: **[insert complete name of each**

**Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commissioner gratuity]**

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

7. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;and
8. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Certified that the bidder is:

A sole proprietorship firm and the person signing the bid document is the sole proprietor/ constituted attorney of sole proprietor,

**Or**

A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,

**Or**

A company and the person signing the bid document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document.)

We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Signature of Bidder\_\_\_\_\_

Dated this day of \_\_\_\_\_

Details of enclosures\_\_\_\_\_

Full Address:\_\_\_\_\_

Telephone No.\_\_\_\_\_

Mobile No.: \_\_\_\_\_

E-mail: \_\_\_\_\_

Company Seal

## Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date : [insert date (as day, month and year) of Bid Submission]

ADVT. No. : [insert number of bidding process]

Alternative No.: [insert identification No if this is a Bid for an alternative]

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Bidder's Name <i>[insert Bidder's legal name]</i>
2. In case of JV, legal name of each member : <i>[insert legal name of each member in JV]</i>
3. Bidder's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Bidder's year of registration: <i>[insert Bidder's year of registration]</i>
5. Bidder's Address in country of registration: <i>[insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information Name : <i>[insert Authorized Representative's name]</i> Address : <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers : <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
1. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement. <input type="checkbox"/> In case of Government-owned enterprise or institution, documents establishing: <ul style="list-style-type: none"><li>• Legal and financial autonomy</li><li>• Operation under commercial law</li><li>• Establishing that the Bidder is not dependent agency of the Purchaser</li></ul>
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Manufacturer's Authorization

*[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]*

Date : *[insert date(as day ,month and year)of Bid Submission]*

ADVT. No. : *[insert number of bidding process]*

Alternative No.: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Purchaser]*

### WHEREAS

We *[insert complete name of Manufacturer]*, who are official manufacturers of *[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of Bidder]* to submit a bid the purpose of which is to provide the following Goods, manufactured by us *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ *[insert date of signing]*

**(TO BE PRINTED IN LETTER PAD OF THE FIRM)**

**EMD Returning Form**

To  
The Director  
National Institute of Technology,  
Tiruchirappalli – 620 015

Sub: Returning EMD amount submitted for the Tender / Quotation.

Sir / Madam,

Our firm has participated in the tender / quotation enquiry No mentioned below and produced the EMD amount through DD, details of the DD are given below.

Tender / Quotation Reference No	
EMD amount	
DD Number	
DD issued Bank	
Date of DD	

It is requested to return the EMD amount to our firm after completion of the purchase to the below mentioned Bank account.

Account Name	
Bank Account Number	
IFSC code	
Bank	

**Signature with Seal and Date**

**MANDATE FORM FOR ELECTRONIC FUND TRANSFER/RTGS TRANSFER**

Date: / /

To

The Director,  
National Institute of Technology,  
Tiruchirappalli – 620 015, Tamil Nadu

Sub	:	Authorization for release of payment / dues from National Institute of Technology, Tiruchirappalli through Electronic Fund Transfer/RTGS Transfer.
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- 1. Name of the Party / Firm / Company / Institute :
- 2. Address of the Party :
- 3. City \_\_\_\_\_ Pin Code \_\_\_\_\_
- 4. E-Mail \_\_\_\_\_ Mobile No: \_\_\_\_\_
- 5. Permanent Account Number \_\_\_\_\_
- 6. Particulars of Bank:

Bank Name:		Branch Name:	
PIN Code:		Branch Code:	
IFS Code:(11 digit alpha numeric code)			
Account Type	Savings	Current	Cash Credit
Account Number:			

**DECLARATION**

I hereby declare that the particulars given above are correct and complete. If any transaction delayed and not effected for reasons of incomplete or incorrect information I shall not hold Director, National Institute of Technology Tiruchirappalli responsible. I also undertake to advise any change in the particulars of my account to facilitate updating of records for purpose of credit of amount through NEFT/RTGS Transfer.

Place: \_\_\_\_\_ Date: \_\_

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Signature & Seal of the Authorized Signatory of the Party

## Section X. Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contractaward.

### Table of Forms

	Forms	Page No
1.	Tender Acceptance Letter	
2.	Contract Agreement	
3.	Performance Security	
4.	Advance Payment Security	

NIT, Tiruchirappalli

# Tender Acceptance Letter

(To be given on Company Letter Head)

**Date:**

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Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No. :

Name of Tender / Work :

**Dear Sir,**

1. I/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. I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from PageNo. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/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. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in itstotality/entirety.
5. In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

**Yours Faithfully,**

**(Signature of the Bidder, with Official Seal)**

## Contract Agreement

*[The successful Bidder shall fill in this form in accordance with the instructions indicated]*

THIS AGREEMENT made

the *[ insert: number ]* day of *[ insert: month ]*, *[ insert: year ]*.

BETWEEN

1. *[insert complete name of Purchaser]*, a National Institute of Technology, Tiruchirappalli of the Ministry of Human resource and development of the Government of India (hereinafter called “the Purchaser”), of the one part, and
2. *[insert name of Supplier ]*, a corporation incorporated under the laws of *[ insert: country of Supplier ]* and having its principal place of business at *[ insert: address of Supplier ]* (hereinafter called “the Supplier”), of the other part:

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Bid by the Supplier for the supply of those Goods and Services

The Purchaser and the Supplier agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
  - (a) the Letter of Acceptance
  - (b) the Tender Forms
  - (c) the Addenda Nos. \_\_\_\_\_ (if any)
  - (d) Special Conditions of Contract
  - (e) General conditions of Contract
  - (f) the Specification (including Schedule of Requirements and Technical Specifications)
  - (g) the completed Schedules (including Price Schedules (BOQ))
  - (h) any other document listed in GCC as forming part of the Contract

3. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *[insert the name of the Contract governing law country]* on the day, month and year indicated above.

For and on behalf of the Purchaser Signed: *[insert signature]*

in the capacity of *[ insert title or other appropriate designation ]*  
in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*

in the capacity of *[ insert title or other appropriate designation ]*  
in the presence of *[ insert identification of official witness]*

**Performance Security**  
**Option 1: (Bank Guarantee)**

*[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]*

*[Guarantor letterhead or SWIFT identifier code]* **Beneficiary:** *[insert name and Address of Purchaser]*

**Date:** \_ *[Insert date of issue]*

**PERFORMANCE GUARANTEE No.:** *[Insert guarantee referencenumber]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that \_ *[insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Applicant") has entered into Contract No. *[Insert reference number of the contract]* dated *[insert date]* with the Beneficiary, for the supply of \_ *[insert name of contract and brief description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* ( \_\_\_\_\_ ) *[insert amount in words]*<sup>5</sup>, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the .... Day of ....., 2...<sup>6</sup>, and any demand for payment under it must be received by us at this office indicated above on or before that date.

<sup>5</sup> The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

<sup>6</sup> Insert the date twenty-eight days after the expected completion date as described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Purchaser might consider adding the following text to the form, at the end of the penultimate paragraph:

“The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

\_\_\_\_\_  
*[signature(s)]*

**Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.**

NIT, Tiruchirappalli

## Option 2: Performance Bond

By this Bond [*insert name of Principal*] as Principal (hereinafter called “the Supplier”) and [*insert name of Surety*] as Surety (hereinafter called “the Surety”), are held and firmly bound unto [*insert name of Purchaser*] as Oblige (hereinafter called “the Supplier”) in the amount of [*insert amount in words and figures*], for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Supplier and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by the sepresents.

WHEREAS the Contractor has entered into a written Agreemen twith the Purchaser dated the \_\_\_\_\_ Day of \_\_\_\_\_, 20\_\_\_\_, for [*name of contract and briefdescription of Goods and related Services*] in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as theContract.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Supplier shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Supplier shall be, and declared by the Purchaser to be, in default under the Contract, the Purchaser having performed the Purchaser’s obligations there under, the Surety may promptly remedy the default, or shall promptly :

- (1) complete the Contract in accordance with its terms and conditions;or
- (2) obtain a Bid or bids from qualified Bidders for submission to the Purchaser for completing the Contract in accordance with its terms and conditions, and upon determination by the Purchaser and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Purchaser and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Purchaser to Supplier under the Contract, less the amount properly paid by Purchaser to Contractor; or
- (3) pay the Purchaser the amount required by Purchaser to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Purchaser named herein or the heirs, executors, administrators, successors, and assigns of the Purchaser.

In testimony whereof, the Supplier has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this \_\_\_\_\_ day of \_\_\_\_\_ 20.

SIGNED ON \_\_\_\_\_ on behalf of \_\_\_\_\_

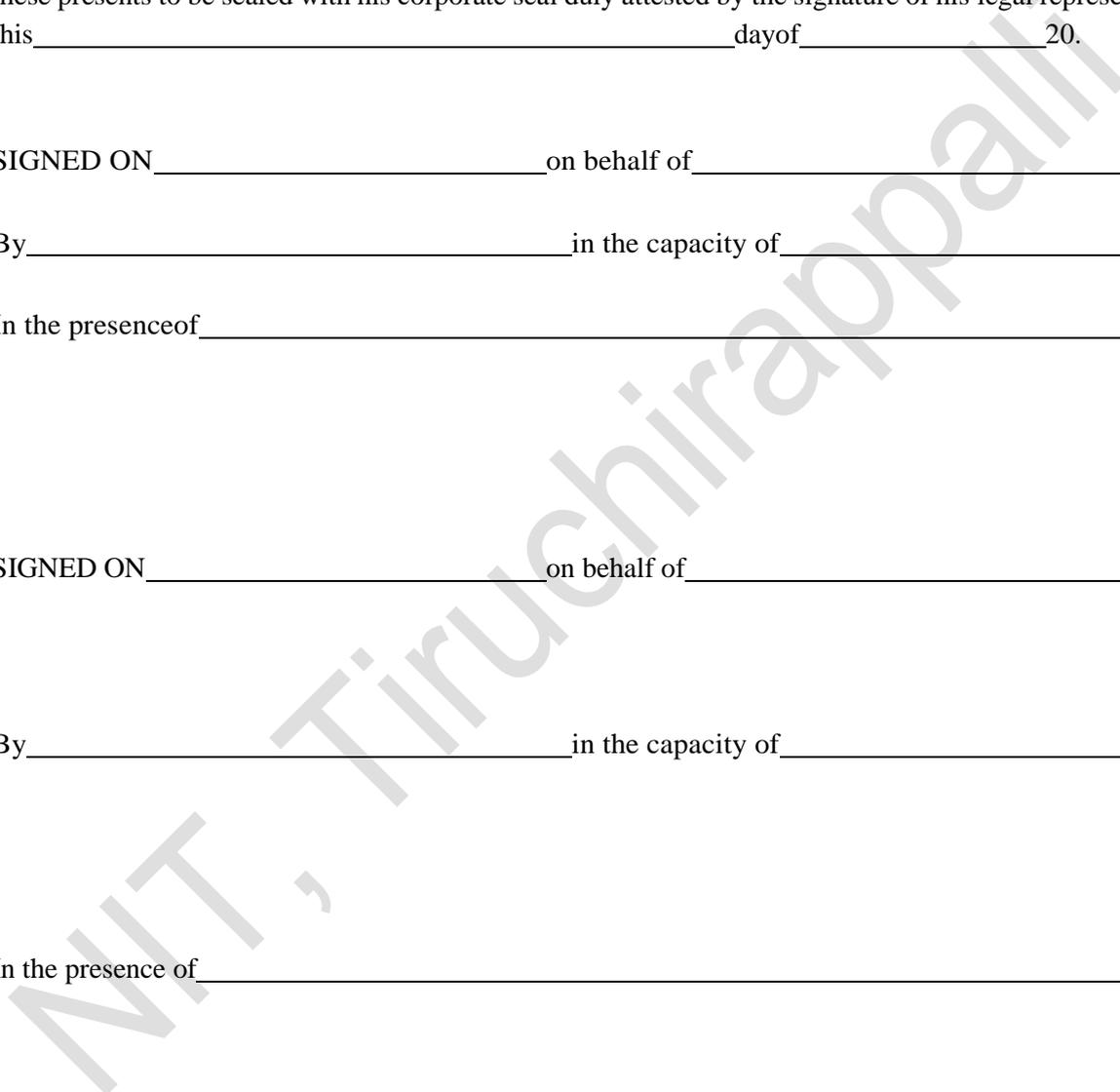
By \_\_\_\_\_ in the capacity of \_\_\_\_\_

In the presence of \_\_\_\_\_

SIGNED ON \_\_\_\_\_ on behalf of \_\_\_\_\_

By \_\_\_\_\_ in the capacity of \_\_\_\_\_

In the presence of \_\_\_\_\_



## Advance Payment Security

[Guarantor letterhead or SWIFT identifier code] **Beneficiary:** [Insert name and Address of Purchaser] **Date:** [Insert date of issue]

**ADVANCE PAYMENT GUARANTEE No.:** [Insert guarantee referencenumber]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that [insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Applicant") has entered into Contract No. [insert reference number of the contract] dated [insert date] with the Beneficiary, for the execution of [insert name of contract and brief description of Goods and related Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum [insert amount in figures] () [insert amount in words] is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] (\_\_\_\_\_) [insert amount in words]<sup>1</sup> upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (1) has used the advance payment for purposes other than toward delivery of Goods; or
- (2) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant on its account number [insert number] at [insert name and address of Applicant's bank].

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the [insert day] day of [insert month], [insert year], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]  
\_\_\_\_\_

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

<sup>1</sup> The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.

