# भारतीय प्रौद्योगिकी संस्थान गोवा INDIAN INSTITUTE OF TECHNOLOGY GOA



## **NOTICE INVITING e-TENDER**

NAME OF WORK: Internal & External Electrical Works at Academic

Block-II, IIT Goa

N.I.T. No. IITGOA/IWD/2024/017 dated 12.11.2024



#### e-Tender Notice

Indian Institute of Technology (IIT) Goa invites sealed **Percentage Rate Tender** from eligible contractors for following work(s):

N.I.T. No	IITGOA/IWD/2024/017 dated 12.11.2024					
Name of work	Internal & External Electrical Works at Academic Block-II, IIT					
	Goa					
Location of Work	IIT Goa transit campus at GEC Farmagudi.					
Estimated Cost	Rs. 27,68,276/- (Including GST)					
Tender Fees	Nil					
Earnest Money Deposit	Rs. 55,366/- only.					
Performance Guarantee	5% of tender accepted value					
Period of Contract	60 days from the date of issue of letter of commencement					
Form of Tender	Two Bid System (Technical Bid & Financial Bid)					
Critical Dates:						
Publish Date	12.11.2024 at 11.00 hrs					
Document Download Start Date	12.11.2024 at 11.00 hrs					
Bid submission start date	12.11.2024 at 11.00 hrs					
Date of Pre-bid meeting	22.11.2024 at 11.00 hrs					
Document Download end date	03.12.2024 at 11.00 hrs					
Bid submission end date	03.12.2024 at 11.00 hrs					
Bid opening date	04.12.2024 at 11.00 hrs					
Website for full and updated	CPP Portal ( <u>www.eprocure.gov.in</u> ) and Institute website					
information	(https://iitgoa.ac.in/tenders/)					

Head-IWD IIT Goa

Copy along with NIT forwarded to:

- 1. Director, IIT Goa
- 2. Registrar, IIT Goa
- 3. Institute Works Department, IIT Goa
- 4. Website of IIT Goa and CPPP.



NIT No.	IITGOA/IWD/2024/017 dated 12.11.2024
Name of Work	Internal & External Electrical Works at Academic Block-II, IIT Goa

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This N.I.T. contains pages <u>01 to 38</u> for Part- A & B and Page <u>38 to 43</u> for Part-C.

This N.I.T. is approved by the Competent Authority for Rs. 27,68,276/- inclusive of GST (Rupees Twenty Seven Lakhs Sixty Eight Thousand Two Hundred and Seventy Six Only)

Head-IWD IIT Goa



# PART- A INFORMATION & INSTRUCTIONS FOR BIDDERS FOR e-TENDERING FORMING PART OF TENDER DOCUMENT AND TO BE POSTED ON WEBSITE

Indian Institute of Technology (IIT Goa) invites sealed **Percentage** Rate bids from eligible contractors for following work(s):

S. No	NIT No.	Name of Work	Estimated Cost put to tender	Tender fee	Earnest Money	Period of Contract	Last date & time of submission of bid	Time and date of opening of technical bid
1	IITGOA/IWD/2024/017 dated 12.11.2024	Internal & External Electrical Works at Academic Block-II, IIT Goa	Rs 27,68,276/-	Nii	Rs 55,366/-	60 days	03.12.2024at 11.00 Hrs	04.12.2024at 11.00 Hrs

- 1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD-7/8 (as applicable) of GCC 2023 duly amended upto last date of submission of bid, which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in or other Standard Form as provided by the Institute. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 3. The intending bidders are required to update their profile in CPP e-procure portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile / uploading tender can be resolved through the CPP Portal help line available at their website. The e- tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.
- 4. Information and Instructions for bidders posted on website shall form part of bid document.
- 5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from Institute website <a href="https://iitgoa.ac.in/tenders/">https://iitgoa.ac.in/tenders/</a> and CPP portal (www.eprocure.gov.in)
- 6. Applicant has to deposit Online payment of Rs. 55,366/- (Rupees Fifty Five Thousand Three Hundred and Sixty Six only) towards refundable EMD.



Details for online payment for EMD:

Beneficiary name: IIT Goa Main Account

Account No: 520101252594859 IFSC Code: UBIN0913286 Bank Name: Union Bank of India

Branch: Farmagudi

Address: GEC Campus, Farmagudi, Ponda, Goa - 403401.

The bank transaction reference slip (UTR Number required) shall be uploaded with technical bid.

- 7. Those contractors not registered on the website mentioned above, are required to get registered beforehand. The necessary training materials including the videos with step-to-step process are available on CPP portal. The institute shall not be responsible for whatsoever case in this regard.
- 8. The intending bidder must have valid class digital signature to submit the bid.
- On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 10. Contractor can upload documents in the form of JPG format and PDF format
- 11. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO). However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate
- 12. The bidder should not have been blacklisted or penalized or not have any involvement in illegal activities or financial misappropriation/frauds etc. by any Central Government / State Government offices/PSUs/Autonomous bodies. An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized, in this effect is required to be scanned and uploaded. (Form-E)

tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

- 13. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
- 14. The Technical Bid shall be opened first on due date and time as mentioned above. The time and date of opening of financial bid of contractors qualifying the technical bid shall be communicated to them at a later date.
- 15. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the Contractor and the Institute will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
- 16. The bidder shall quote their rates considering all prevalent taxes/ cess like GST, workers cess or any other tax on material /work as applicable on the last date of bid submission and nothing extra shall be paid to the contractor on this account. All such taxes as applicable shall be paid by the contractor himself. The institute shall deduct from the RA bills, the TDS as applicable
- 17. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a



power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must be disclosed that the firm is duly registered under the Indian partnership act, 1952.

- 18. The bidders(s) shall have to make his/her own arrangement for housing facilities for staff at his own cost. No labour huts will be allowed to be constructed in Institute campus. Any decision in this regard shall rest with the IIT Goa.
- 19. Power/ electricity supply required for construction, testing & commissioning shall have to be provided to the contractor on payment basis as per the institute norms or else it has to be arranged by the contractor. Water required for testing of equipment is also in the scope of agency.
- 20. The bidders(s) shall take precaution to ensure quality of workmanship as well as the progress of the work. He shall regulate the labour accordingly. The bidders(s) shall make arrangements for disposal of dismantled materials and other trash properly in an environmental friendly manner.
- 21. The Institute reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
- 22. All needful statutory provisions to be adopted at site to tackle epidemic/ pandemic or similar situation of COVID-19 shall be done by the contractor and expenditure on the same shall be borne by the contractor unless statutory orders direct for the reimbursement of the same.
- 23. The bidders should also read the General Conditions of Contract for Construction works 2023 with latest amendments upto date of submission of bid (available on CPWD website), which is available as Govt. of India Publications, which will be a part of the agreement including the special conditions and particular specifications etc.

24. List of documents to be scanned and uploaded within the period of bid submission:

(i)	Earnest Money Deposit - Scanned copy of bank transaction reference slip (UTR Number
	required)
(ii)	Letter of Transmittal
(iii)	GST Registration Certificate
(iv)	PAN card and Bank Account details duly attested by the firm.
(v)	Copy of Experience/work completion certificates as per conditions laid down in the eligibility
	criteria
(vi)	Certificate of Financial Turnover from CA or Copy of audited balance sheets of last three
	financial years.
(vii)	EPF, ESCI registration certificate (If applicable)
(viii)	Valid electrical contractor license OR associate contractor having valid electrical license of
	appropriate class.
(ix)	An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized, for non-backlisting
	or penalized or not involved in illegal activities or financial misappropriation/frauds etc. by any
	Central Government / State Government Offices/PSUs/Autonomous bodies, is required to
	be scanned and uploaded

- 25. Any clarification on the content of NIT/ Tender document can be referred to the Executive Engineer (Electrical), IIT Goa (Phone No. 0832-2490900) email: <a href="mailto:ex.eng.ee@iitgoa.ac.in">ex.eng.ee@iitgoa.ac.in</a> by making a written requested up to 22.11.2024 at 11:00 Hrs.
- 26. Pre-Bid meeting will be held in the IWD Office, IIT Goa on 22.11.2024-at 11.00 Hrs, to clear the doubt of intending bidders, if any.
- 27. Corrigendum / Addendum to this tender if any will be uploaded on the CPPP/ Institute website. Bidders/ prospective bidders may kindly note this.



## **LETTER OF TRANSMITTAL**

From	n: M/s	
То	The Head- IWD IIT Goa	
Subje	ect: Submission of bids for the work of	
	ng examined the details given in the bid doc ant Information.	cument for the above work, I/we hereby submitthe
	I/We hereby certify that all the statement mid documents accompanying statement are	nade and information supplied in Technical cum eligibility
2.		ails necessary for eligibility and have no further pertinent
	to approach the correctness thereof. I/We also authorize	ency certificate and authorize the Engineer-in-Charge Bank issuing the solvency certificate to confirm the Engineer-in-Charge to approach to verify our competence and general reputation.
	I/We submit the following certificates in supp having successfully completed the following	ort of our suitability, technical knowledge and capability for eligible similar works:
	Name of work	Certificate from
corre		given in the enclosed Technical cum eligibility bid are be liable to be debarred, disqualified / cancellation of by me / us is found to be incorrect.
Enclo	osures: Seal of bidder	
Date	of submission:	
Signa	ature(s) of Bidder(s):	



**CPWD FORM -6** 

#### For e-TENDERING

Indian Institute of Technology (IIT) Goa, invites sealed **Percentage Rate Tenders** in two bid system from eligible contractors for following work(s):

Name of Work: Internal & External Electrical Works at Academic Block-II, IIT Goa

- 1.1 The work is estimated Cost: Rs. 27,68,276/- only (incl. GST). This estimate, however, is given merely as a rough guide.
- 1.2 The Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
- 1.3 The firms/Contractors who fulfill the following requirements shall be eligible to apply:
- 1.3.1 Should have satisfactorily completed the similar works in any Central Government Department/ State Government Department/ PSUs/ Autonomous bodies etc. as mentioned below during the last seven years ending last day of the month previous to the one in which tenders are invited (Form-B).
  - Three similar works each costing not less than 40% of estimated cost put to tender
  - or Two similar works each costing not less than 60% of estimated cost put to tender
  - or One similar work costing not less than 80% of estimated cost put to tender.

#### Similar work shall mean works of "Any Electrical Works"

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of tenders.

Contractor shall submit completion certificate for such works for pre-qualification. Pre-qualification application received without such experience (Completion Certificate) shall be summarily rejected.

Bidder shall submit self-attested certificate of completion certificate(s), issued by the officer not below the rank of Executive Engineer or equivalent. Completion certificate must clearly indicate.

- 1. Name of work
- 2. Stipulated date of start and actual date of completion.
- 3. Gross Value of work done
- 4. That the work has been completed satisfactorily.
- 5. Full address of client, officer issuing the certificate & location where work is executed.
- 1.3.2 Should have appropriate (MV or above) valid electrical contractor's license issued by Govt. of Goa. If the bidder does not have a valid contractor license, then he/she must have the willingness from a licensed contractor for supervising the work to whom such license is issued by the Govt. of Goa for carrying out the electrical work in MV category or above. The willingness letter (as given in Form-F) along with a copy of the valid license (attested by the bidder and license holder) must be submitted with the technical bid. The license must be valid during the execution period of the work.
- 1.3.3 Should have had **Average Annual Financial Turnover of Rs. 13.84 lakhs** during the last three years ending 31st March 2024 (Scanned copy of Certificate from CA with Unique Document Identification Number (UDIN) to be uploaded). Year in which no turnover is shown would also be considered for working out the average. (Annexure-I)
- 1.3.4 The bidder should not have incurred any loss **(profit after tax should be positive)** in more than two years during available last five consecutive balance sheets, duly certified and audited by the Chartered Accountant. (The balance sheet in case of Pvt./ Public Ltd. company means its standalone financial statement and consolidated financial statement both). (Annexure-I)
- 1.3.5 The bidder should not have been blacklisted or penalized or not have any involvement in illegal



activities or financial misappropriation/frauds etc. by any Central Government / State Government Offices/PSUs/Autonomous bodies. An undertaking on Non-Judicial Stamp paper of Rs. 100/- duly notarized, in this effect is required to be scanned and uploaded. (Form-E)

- 1.3.6 The bidder should have valid GST Registration Certificate.
- 1.4 The bidder should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The bidder shall have to submit a list of these employees stating clearly how these would be involved in this work within 15 days of award of work.
- 1.5 The bidders have to submit a list of jobs in progress. Brief details of the units scope of work, names and address (postal mail) of present clients.
- 2. The period of contract will be 60 days from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents. However, the contract further may be extended for next year on same terms and conditions if the vendor's performance is found satisfactory. Scope of work and cost of such extension may be mutually decided.
- 3. The site for the work is mostly available. The work is required to be executed in occupied buildings.
- 4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from website <a href="https://www.iitgoa.ac.in">www.iitgoa.ac.in</a> or <a href="https://www.eprocure.gov.in">www.eprocure.gov.in</a>
- 5. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified. While submitting the revised bid, contractor can revise the quoted rates but before last time and date of submission of tender as notified.
- 6. The bid submitted shall become invalid, if
  - (i) The bidder is found ineligible.
  - (ii) The bidder does not deposit original EMD with technical bid.
  - (iii) If a bidder quotes nil rates against each item in item rate tender or does not quote any percentage above / below on the total amount of the tender or any section/ sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest bidder.
  - (iv) If any discrepancy is noticed in the documents / details as submitted by bidder.

#### 7. **EMD**:

Applicant has to deposit Online payment of Rs. 55,366/- (Rupees Fifty Five Thousand Three Hundred and Sixty Six only) towards refundable EMD. Details for online payment are as under:

Beneficiary name: IIT Goa Main Account

Account No: 520101252594859 IFSC Code: UBIN0913286 Bank Name: Union Bank of India

Branch: Farmagudi

Address: GEC Campus, Farmagudi, Ponda, Goa - 403401.

The bank transaction reference slip (UTR Number required) shall be uploaded with technical bid. The EMD of the successful bidder will be returned without any interest after submission of Performance Guarantee. The earnest money of unsuccessful bidders shall be returned after financial evaluation/award of work. Please provide details of particulars for the refund in 'Form D' and upload the same along with technical bid'.

Note: The MSE Firms are not relaxed for works contracts. No other relaxation will be allowed.



#### 8. Performance Guarantee:

The contractor whose bid is accepted will be required to furnish performance guarantee of **5%** (**Five Percent**) of the tender accepted amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/ Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee.

The LED light luminaries/ fixtures provided under the contract shall be guaranteed for a period of 2 years and all other work for 1 year. The 50% of the performance guarantee shall be refunded to the contractor soon after the completion of the work and recording of the completion certificate. 50% of the performance guarantee shall be retained as security deposit. 50% of the performance guarantee retained as security deposit plus 2.5 % security deposit already deducted from running bills (i.e. 2.5 + 2.5 = 5%) which shall be refunded after Guarantee/Warrantee period from the date of completion/ handing over whichever is later. In this regard, contractor shall furnish an undertaking and bond for Guarantee/Warrantee of 2 years.

#### 9. Security Deposit:

The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the executed amount of work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The security amount will also be accepted in the shape of Government Securities or Demand Draft or Fixed Deposit Receipt or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. The said security deposit shall be returned after satisfactorily completion of defect liability/warranty period. This security deposit shall be forfeited if he/they fails to comply with any of the conditions of the contract. No interest shall be paid on the security deposit.

#### 10. Payment Clause:

Running Account bill payment will be made as per execution of work duly certified by the Engineer-in-Charge. No advance payment will be made. Income tax and all other statutory tax deduction will be made as per Govt. of India norms.

#### 11. Liquidated Damages(LD):

After issue of job sheet, the contractor has to complete the work within the time specified in it. Failing which LD shall be applicable as - With a rate of 2% (two percent) per month of delay to be computed on per day basis based on quantum of damage suffered due to stated delay on the part of Contractor.

#### 12. The description of the work is as follows: -

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies



that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 13. The competent authority on behalf of the IIT Goa does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
- 14. Mere becoming the lowest bidder, prior to financial bid scrutiny will not give any right to the lowest bidder to claim that he is successful in the bidding process. The successful bidder (L1) shall be decided only after following due procedure.
- 15. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
- 16. The competent authority on behalf of IIT Goa reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
- 17. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his/her retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
- 18. The bid for the works shall remain open for acceptance for a period of **90 days** from the date of opening of bid. Further
  - a) If any bidder withdraws his bid or makes modifications in the terms & conditions of the bid which is not acceptable to the department within 7 days after last date of submission bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the workis issued or not.
  - b) If any bidder withdraws his bid or makes modifications in the terms & conditions of the bid which is not acceptable to the department after expiry of 7 days after last date of submission bids, then the Government without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the workis issued or not.
  - c) In case of forfeiture of earnest money as prescribed in para (a) and (b) above, bidders shall not be allowed to participate in the rebidding process of the same work.
- 19. Except writing rates and amount, the bidder should not write any conditions or make any changes, additions, alterations and modifications in the printed/downloaded form of tenders. If any changes, additions, alterations, modifications are detected in the submitted bid even at a later date when contract has been awarded; the contract will be liable to be void. The decision of IIT Goa will be final & binding to the Contractor in this regard.
- 20. The Specifications to be followed for execution of work:
  - CPWD General specifications for electrical works Part-I (Internal) & Part-II (External) 2013 and DSR E&M (2022) as modified and Correction Slips/amendments issued upto previous day to last date of bid submission or any other relevant CPWD manual/guideline
  - Relevant IS Code.
     In case of any contradictory, IS code will prevail for this NIT.



#### 21. Signing of Contract:

This notice-inviting bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his tender by the Accepting Authority, shall, within 7 days from the stipulated date of start of the work, sign the contract consisting of

- a. the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- b. Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:
  - i. Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto.
  - ii. C.P.W.D. Safety Code.
  - iii. Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.
  - iv. CPWD Contractor's Labour Regulations. (if applicable)
  - v. List of Acts and omissions for which fines can be imposed.
- c. Integrity Pact (if applicable)
- 22. No payment for the work done will be made unless contract is signed by the contractor.
- 23. The bid document will include following two components: -
  - Part A: CPWD-6, CPWD-7 including Schedule A to F for the work, Standard General Conditions of Contract for CPWD 2023 as amended/ modified up to last date of submission of bid.
  - Part B: Additional/specific conditions of contract, technical specification/schedule of quantities applicable to the work. In case of any discrepancy between part A and part B of the contract agreement, the provision of Part A shall prevail.
- 24. Any dispute unless resolved amicable shall be settled by a court of law having jurisdiction over Goa.



CPWD Form - 7

INDIAN INSTITUTE OF TECHNOLOGY GOA **IWD Office** 

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#### Percentage Rate e-Tender & Contract for Works

Tender for the work of: Internal & External Electrical Works at Academic Block-II, IIT Goa

Tender to be submitted online upto 11.00 hrs on 03.12.2024 as per the NIT To be opened online at 11.00 hrs. on 04.12.2024 as per NIT.		
Issued to: - M/s		
Signature of officer issuing the documents		
Designation:		
Date of Issue:		

#### **TENDER**

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

I/We hereby tender for the execution of the work specified for the Institute within the time specified in Schedule "F", viz., schedule of quantities and in accordance with the specifications, designs, drawings and instructions in writing referred to in General Rules and Directions and in Clause of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such condition so far as applicable.

I/We agree to keep the tender open for **ninety (90) days** from the due date of opening and not to make any modification in its terms and conditions.

A sum of Rs. 55,366/- is hereby paid online in favour of Indian Institute of Technology (IIT) Goa as earnest money. If I/We fail to furnish the prescribed performance guarantee of tender form within prescribed period. I/We agree that the Institute, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that Institute shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12.2 and 12.3 of the tender form.

Further I/We agree that in case of forfeiture of earnest money or both earnest money and performance quarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then

I/We shall be debarred for tendering in IIT Goa in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-In-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.



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

	Seal of bidder:
	Date of submission:
	Signature(s) of Bidder(s)
ACCEPTANCE	
The above tender (as modified by you as provided in the letters ment by me for and on behalf of the Director, IIT Goa for a sum of Rs	
V - 1	
The letters referred to below shall form part of this contract agreemen	t: -
(a)	
(b)	
(c)	
	For & on behalf of the IIT Goa
	Signature
	Designation
	Date:



## **SCHEDULES**

#### SCHEDULE 'A'

Schedule of quantities (Enclosed)

#### As per Financial Bid/BOQ

#### SCHEDULE 'B'

Schedule of materials to be issued to the bidder/contractor.

SI. No.	Description of Item	Qty.	Rates in figures & words at which the material will be charged to the contractor	Place of Issue
1	2	3	4	5
1.	NIL	NIL	NIL	NIL

#### SCHEDULE 'C'

Tools and plants to be hired to the bidder/contractor

Sl. No.	Description	Hire charges per day	Place of issue
1	2	3	4
NIL	NIL	NIL	NIL

#### SCHEDULE 'D'

Extra schedule for specific requirements/ documents for the work, if any.

Nil

#### SCHEDULE 'E'

1.	Reference to General Conditions of contract	:	General Conditions of Contract (GCC) 2023 for CPWD Maintenance works, as modified & corrected up to last date of submission of tender.
2.	Name of work	:	Internal & External Electrical Works at Academic Block-II, IIT Goa.
(i)	Estimated Cost put to tender:	:	Rs. 27,68,276/- (incl. GST)
(ii)	Earnest Money	: Rs. 55,366/-	
(iii)	Performance guarantee	:	5% of tender accepted value
(iv)	Security Deposit	:	2.5% of executed amount of work.

#### SCHEDULE 'F'

General Rules & Directions		
Officer Inviting Tender	:	Head-IWD, IIT Goa
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3		See under Clause 12
Definitions:		



2(v)	Engineer-in-Charge	:	Executive Engineer (Electrical), IIT Goa
2(vii)	Accepting Authority	:	Director, IIT Goa
2(x)	Percentage on cost of materials and labor to cover all overhead & profits	:	15%
2(xi)	Standard Schedule of Rates	:	DSR 2022 (E&M), with correction slips up to last date of submission of bid & For NDSR Items – Market Rates
2(xii)	Department	:	Institute Works Department, IIT Goa
9(ii)	Standard CPWD contract Form, CPWD Form 7/8 as modified & corrected upto	:	CPWD GCC 2023 –for Maintenance Works CPWD Form 7 as modified and Correction Slips/amendments issued upto previous day to last date of bid submission.
Clause	1 (Performance Guarantee)		
(i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance			7 days
(ii) Maximum allowable extension with late fee 0.1% per day of performance guarant amount beyond the period provided in above			7 days
Clause 2 (Compensation for Delay) Authority for fixing compensation under Clause 2			Head - IWD, IIT Goa
Clause 2A Whether Clause 2A shall be applicable			Yes
Clause 5 Number of days from the date of issue of letter of acceptance for reckoning date of start mile stone(s) as per table given below			10 days or the date of issue of commencement



Mile	ston	e(s) as per table given below:			
	S. No.	Description of Milestone (Physical)	Days (	Allowed in from date start)	Amount to be withheld in case of non-achievement of Milestone.
	1	Supply of sample material at Site		days	1% of tendered amount
	2	(a) Supply of 100% material at site, (b) complete dismantling work and (c) complete execution of substation work & external work	25	5 days	2% of tendered amount
	3	50% Installation, Testing & Commissioning work other than substation and external work	40	) days	1% of tendered amount
	4	100% Installation, Testing & Commissioning work other than substation and external work	60	) days	1% of tendered amount
Tim	e all	owed for execution of work	:	60 days	
Aut	horit	ty to decide			
(i)	1	Extension of time	:	Director, IIT Goa	
(ii)	)	Rescheduling of milestones	:	Registrar, IIT Goa	
(iii		Shifting of date of start in case of delay in handing over of site	n :	Head - IW	D, IIT Goa
Nati	use : ure :tron	of Hindrance Register (either physical o	r :	Applicable (Physical)	
Cla	use (	6	:	Applicable (Computerized Measurement Book)	
Clause 7 Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment is					Account Bill Payment or as the Competent Authority
Clause 7A  No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge			:	Not Applic	able
Clause 10A List of testing equipment to be provided by the contractor at site lab				As per site Engineer-i	requirement and directions of n-Charge.
Cla	use '	10 B	:	Not Applic	able
Cla	use '	10 C			



Component of labour expressed as percent of value of work	:	Not Applicable
Clause 10 CA Payment due to variation in prices of materials after receipt of tender	:	Not Applicable
Clause 10 CC Payment due to Increase / Decrease in Prices/ Wages (excluding materials covered under clause 10 CA) after Receipt of Tender for Works	:	Not Applicable
Clause 10 CC		
Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column Schedule of component of other Materials, Labour, POL etc. for price escalation	:	Not Applicable
Clause 11 Specifications to be followed for execution of work		i) CPWD General Specification for Electrical work Part-I(Internal), Part-II(External), Part-IV(Substation) latest publication with correction slip/amendments up to last date of submission of tender.  ii) CPWD Handbook on safety, iii) NBC 2016 Vol 1 & Vol 2 iv) Relevant IS Code as applicable
Clause 12 Type of Work	:	Repair & Renovation Work
Clause 12.2. & 12.3: Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work 12.5: Deviation Limit beyond which Clause 12.2 & 12.3 shall apply for Foundation Work	:	100% All extra item shall be as per CPWD GCC Maintenance Works 2023 All deviation quantities shall be paid at agreement rates only.
Clause 16 Competent Authority for deciding reduced rates	:	Director, IIT Goa
Clause 18 List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	As applicable to be arranged by the contractor
Clause 19 Authority to decide penalty for each default	:	Director, IIT Goa
Clause 25 - This clause will be governed as per CPWD GCC (a) Constitution of Dispute Redressal Committee (DRC).	:	Authority to appoint DRC Director, IIT Goa
(b) Conciliation/Mediation/Arbitration of disputes	:	Appointment of Conciliator/ Mediator/ Arbitration as per CPWD Manual/



provisions of law.

#### Clause 32

Requirement of Technical Representative(s) and recovery Rate

Sr. N o	Minimum Qualification of Technical Representativ e	е	Designation (Principal/ Technical/ Representative)	Minimum Experienc e	Rate at which shall be made contractor in th not fulfilling pr clause	from the ne event of ovision of
					Figures	Word s
1	Graduate Engineer or Diploma Engineer	Electrical		2 or 5 years respectively	Rs. 15000/- Per month	Rupees Fifteen Thousand per month

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

Clause 38: Not Applicable



## PART- B ADDITIONAL AND COMMERICAL CONDITIONS OF CONTRACT

The bidder is advised to visit the site of the work i.e. "IIT Goa at GEC Campus" to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.

The work shall be executed as per CPWD General Specifications for CPWD's general specification for Electrical Works Part-I Internal & Part-II External 2023, Part-IV (Substation), IE rules, Indian Standards Code, as per Rules of NBC & all the amendment issued upto date and as per directions of Engineer-in-Charge.

These additional specifications are to be read in conjunction with above and in case of variations; specifications given in this Additional conditions shall apply. However, nothing extra shall be paid on account of these additional specifications & conditions as the same are to be read along with schedule of quantities for the work.

#### 1 Rates:

The work shall be treated as on works contract basis and the rates tendered shall be for complete items of work inclusive of all taxes including GST, duties, and levies etc. and all charges for items contingent to the work, such as packing, forwarding, insurance, freight and delivery at site for the materials to be supplied by the contractor, watch and ward of all materials for the work at site etc. Prices quoted shall be firm.

#### 2. Mobilization Advance:

No mobilization advance shall be paid for the work, unless otherwise stipulated in tender papers for any individual works/ composite work.

#### 3. Completeness of Tender:

All sundry equipment's, fittings, assemblies, accessories, hardware items, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.

#### 4. Storage and Custody of Materials:

The contractor has to make his own arrangement for the storage of the material at site & necessary watch and ward of the electrical installation during the execution of work till the same is handed over to the department. No extra payment will be made on this account. The storage space shall however be arranged by the department at site, if available. The contractor shall however be responsible for proper storage and safe custody of the same till their installation and handing over to the department.

#### 5. Works to be done by the contractor:

Unless and otherwise mentioned in the tender documents, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost: -

Cutting and making good all damages caused during installation and restoring the same to their original finish.

Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same.

Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/distribution gear items, cubicle switchboard etc.

Damages to finished surfaces of these items while handling and erection, shall however be rectified to the satisfaction of the Engineer-in-Charge.

Testing and commissioning of completed installation.

Storage space for all equipments, components and materials for the work.



#### 6. Machinery for Erection

All tools and tackles required for unloading/handling of equipment's and materials at site, their assembling, erection, testing and commissioning shall be the responsibility of the contractor. No T&P shall be issued by the department and nothing extra shall be paid on account of this.

#### 7. Electric Power Supply and Water Supply:

Power and water supply will be arranged by the contractor at the site for installation and testing purpose. Contractor will take due care to ensure safety of electrical installation during execution of work.

#### 8. Care of the building and other structures / installations

Care shall be taken by the contractor while handling and installing the various equipment's and components of the work to avoid damage to the building and its surrounding roads, pavements, horticulture work, boundary wall, sewer and water lines etc. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site. In case of failure to do so, damages to existing infrastructure/equipment done due to carelessness/poor quality work shall be compensated by contractor to IIT Goa.

#### 9. Structural Alterations to Buildings:

- (i) No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-In-charge.
- (ii) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost.
- (iii) All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains/GI&MS Pipe etc. as the case may be, by any suitable means as approved by the Engineer-In-charge without any extra payment.

#### 10. Addition to an installation:

Any addition, temporary or permanent, to the existing electrical installation shall not be made without a properly worked out scheme/design by a qualified Electrical Engineer to ensure that such addition does not lead to overloading, safety violation of the existing system.

#### 11. Quality of material:

All materials and equipments supplied by the contractor shall be new and must be in Original seal-pack. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

- 12. Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by firm. The firm shall ensure that:
  - (i) Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
  - (ii) As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, rising main, other main items etc., its copy shall be endorsed to the Engineer-in-charge.
  - (iii) The firm will be required to procure material like exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears etc. directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor if required by the department.
  - (iv) Inspection at factory or at go down of the manufacturer, as required, shall be arranged by the firm for a mutually agreed date.
  - (v) Delivery of material shall be taken up only with the consent of department, after clearance of the material.
  - (vi) Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.



Similarly, for fabricated equipments, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

#### 13. Ratings of components:

All components in a wiring installation shall be of appropriate ratings of voltage, current and frequency, as required at the respective sections of the electrical installations in which they are used.

All conductors, switches and accessories shall be of such size as to be capable of carrying the maximum current, which will normally flow through them, without their respective ratings being exceeded.

#### 14. Interchangeability:

Similar parts of all switches, lamp holders, distribution fuse boards, Switch gears, ceiling roses, brackets, pendants, fans and all other fittings of the same type shall be interchangeable in each installation.

#### 15. Fabrication in reputed workshop:

Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, powder/epoxy paint plant, proper testing facilities, manned by qualified technical personnel. These shall be as per make / item approved.

#### 16. Inspection and Testing (as applicable):

All major equipment's shall be offered for initial inspection by the Engineer-In-Charge or officer authorized by him at manufacturer's works in India. The department may or may not inspect the material at its discretion. The contractor will intimate the date of testing of equipment's at the manufacturer's works before dispatch. Contractor shall make all arrangements for inspection of material at works. Nothing Extra Shall be paid on this account. The department reserves the right to get the equipment inspected by third party inspection also. Such inspection shall be of following categories:

- (i) Inspection of materials/ equipment's to be witnessed at the manufacturer's premises/ at its authorized works in India, in accordance with relevant BIS/ Agreement Inspection Procedure.
- (ii) To receive material at site with manufacturer's Routine & Type Test certificates.
- (iii) To inspect material at the authorized dealer's, go-down to ensure delivery of genuine material at site.
- (iv) To receive material after physical inspection at site.
- (v) Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.

#### 17. Workmanship:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice. 
Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor of appropriate class suitable for execution of the electrical work. He shall engage suitably/skilled/licensed workmen of various categories for execution of work supervised by supervisors/Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instruction of Engineer-In-Charge and other senior officers of the Department during the progress of work.

<u>Use of quality materials:</u> Only quality materials of reputed make as specified in the tender will be used in work.

#### 18. Installation & Test Reports:

All testes prescribed in this General Specification, to be done before, during and after installation, shall be carried out, and the test results shall be submitted to the Engineer-In Charge in prescribed Performa, forming part of the Completion Certificate.



#### 19. Commissioning on completion:

After the work is completed, it shall be ensured that the installation is tested and commissioned.

#### 20. Completion plan and completion certificate:

For all works completion certificate after completion of work as given in Appendix –E of CPWD Specification shall be submitted to the Engineer-in-charge. Completion plan drawing indicating the following, along with three copies of the same shall also be submitted.

General layout of the building. (i) Locations of main switchboard and distribution boards, indicating the circuit numbers controlled by them. (ii) Position of all points and their controls. (iii) Types of fittings, viz. LED Light fixtures, pendants, brackets, bulk head, Ceiling fans, exhaust/fresh air fans etc. Name of work, job number, tender reference, actual date of completion, names of Division/ Sub-division and name of the firm who executed the work with their signature.

#### 21. Drawings/Documents to be furnished on completion of installation (as applicable):

Three sets of the following laminated drawings shall be submitted by the contractor while handing over the installation to the Department.

- 1. Manufacturer's technical catalogues of all equipment's and accessories.
- 2. Operation and maintenance manual of all major equipment's, detailing all adjustments, operation and maintenance procedure.

#### 22. Safety Code & Labour Regulations

- In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provisions, B.I.S. Recommendations, Factory Act, workmen's compensation act, CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the bidder liable for penalty for Rs. 200/- for each violation. In addition, the Engineer-In-Charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.
- The contractor shall provide necessary barriers, warning signals and other safety measures wherever necessary so as to avoid accident. He shall also indemnify IIT Goa against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

#### 23. Period of Contract

The period of contract is **60 days** indicated in the tender documents is for the entire work of planning, designing, etc., arrangement of materials & equipment's, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-In-Charge.

#### 24. Extent of Work

The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipment's covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been specifically mentioned in bill of quantity in the tender document. However, major equipment not covered in the scope of the work and required subsequently as an additional feature, not covered in the contract specifications, shall be paid extra. The decision of the Engineer-In-Charge in the matter shall be final and binding upon the contractor.

In addition to supply, installation, testing and commissioning of sub-station equipments, following works shall be deemed to be included within the scope of work to be executed by the renderer. Minor works



necessary for installation of equipments, foundation, making of opening in walls or in floors and restoring them to their original condition/ finish and necessary grouting etc. as regd.

#### 25. Compliance with Regulations and Indian Standards

- All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
  - a. Factories Act.
  - b. Indian Electricity Rules.
  - c. B.I.S. & other standards as applicable.
  - d. Workmen's Compensation Act.
  - e. Statutory norms prescribed by local bodies like CEA, Power Supply Co., etc.
- Nothing in this specification shall be construed to relieve the successful bidder of his responsibility
  for the design, manufacture and installation of the equipment with all accessories in accordance with
  currently applicable statutory regulations and safety codes.
- Successful bidder shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the bidder. Failure to provide such safety requirement would make the bidder liable for penalty as decided by the Institute authority. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of bidder and recover the cost thereof from him.

#### 26. Insurance and Storage

All consignments are to be duly insured upto the destination from warehouse to warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

#### 27. Verification of Correctness of Equipment's at Destination (as applicable)

The contractor shall have to produce all the relevant records to certify that the genuine equipment's from the manufacturers has been supplied and erected.

#### 28. Painting (as applicable)

The major equipment's shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However, hangers, supports etc. shall be painted with required shade including painting with two coats of anticorrosive primer paint at site as per the instructions of the engineer-in-charge.

#### 29. Indemnity

The successful bidder shall at all times indemnify the department, consequent on this works contract. The successful bidder shall be liable, in accordance with the Indian law and regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipment's and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk in his own interest. No extra payment would be made to the successful bidder on account of the above.

#### 30. Order of Preference:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

- 1. Schedule of quantities/ BOQ of this NIT
- 2. Relevant IS Code with latest Amendments and other relevant IS code
- 3. Additional and Commercial Conditions



- 4. Technical specifications specified in the tender
- 5. CPWD General Specifications
- 6. General Conditions of Contract for CPWD Works
- 7. Any other International code in case IS code is not available.

#### 31. Safety Measures

- All equipment's shall incorporate suitable safety provisions to ensure safety of the operating personnel as per manufacturer's standard practice.
- Work is to be carried out in such a manner that existing working of the building is not hindered. No payment on A/c of idle labour for this reason shall be made to contractor.
- The issue of construction safety & standards has gained utmost importance in recent times. Contractors must follow highest safety standards and "ZERO" tolerance towards any violation of safety norms at the construction site. All workers of contractor and associate agencies, invariably and at all the times, must follow all safety norms, adopt best safe work practices as per requirement of job and use all required safety gadgets in their working throughout the project duration.

#### 32. Erection Tools

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

#### 33. Conformity to IE Act, IE Rules, and standards:

All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and Indian Electricity Rules, 1956 amended up to date (Date of call of tender unless specified otherwise).

#### Note:

- 1) The special conditions detailed above are in addition to general/ other/ additional conditions as specified elsewhere in tender document.
- 2) Nothing extra shall be paid on the account of these special conditions. The Engineer-in Charge can stop the work and seek removal of any workers from site in case of non-adoption of safety measures.



#### SCOPE OF WORK & TECHNICAL SPECIFICATIONS FOR I&E ELECTRICAL WORK

- Scope of Work: The specifications given below pertain to the internal & external electrical installation work, substation work and CPWD Specifications are to be followed.
- 2. Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.
- 3. The work shall be executed as per CPWD General Specifications for Electrical Works Part I, II & IV as amended up to date, relevant I.E. Rules, BIS/IEC and as per directions of Engineer-in-charge. These additional specifications/ conditions are to be read in conjunction with above and in case of variations; specifications given in the in the contract shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with schedule of quantities for the work.
- 4. For the items, which are not covered under CPWD specifications, the special conditions of Indian Electricity Rules/ CEA norms/B.I.S. specifications shall apply. In this regard, the decision of Engineer-in-Charge shall be final. Wherever any reference is made of any Indian Standard, it shall be taken as reference to the latest edition with all amendments / revision issued thereto up to the date.
- 5. The work is to be carried out to the entire satisfaction of the Engineer-in-charge and his authorized representative.
- 6. The tenderer should, in its own interest, visit the site and get familiarized with the site conditions before tendering.
- 7. No T & P shall be issued by the Department and nothing extra shall be paid on account of this.
- The Institute will not be liable for any costs related to consumables, tools, labour, service engineer visits, or other site materials.
- 9. The contractor is required to get the drawings & make of material approved before execution of work.
- 10. The contractor shall submit the relevant test certificates at the time of supply of equipment/Material.
- 11. Point Wiring: The wires used for the point wiring and power wiring shall be of 650 / 1100 Volts grade FRLS PVC insulated multi stranded copper conductor single core cables. All mounting boxes for plate type accessories shall be of metallic construction and of the same make as that of the plate type switches and accessories.
- 12. Copper and Aluminium Cables: This specification covers the supply, installation, testing and commissioning of 1100 V grade cables. The design, manufacture and performance of the cables should conform to the relevant IS.
- 13. Moulded Case Circuit Breakers:
  - The MCCBs shall comprise single units of triple pole/four pole construction as specified, shall be rated for 415 V AC.
  - All live parts shall be totally enclosed and shrouded with a heat resistant moulded insulating material housing. Operating mechanism shall be quick make, quick break and trip free type.
  - The MCCB shall be provided with the following features in microprocessor release: Inverse-timecurrent tripping characteristics under sustained overload. Instantaneous tripping on short circuit,
  - MCCBs shall be of current limiting type.
  - The rated service breaking capacity (lcs) shall not be less than the ultimate short circuit breaking capacity (lcs = 100%lcu)



- Variable Thermal setting shall be provided in all MCCB s with thermal magnetic Release.
- All circuit breaker below 250 amps rating shall be provided with thermal magnetic release & circuit breakers of 250 amps rating and above shall be provided with Microprocessor based release unless otherwise specified.
- All MCCBs shall be provided with rotary handles and links for which nothing extra shall be paid.

#### 14. Substation & LT Panel Work:

- a) The scope of work also includes co-ordination with the GED (Goa Electricity Department) from where the present power at 11kV feeder is provided. If there is a deficiency in power supply from GED or there is a failure or breakdown in power etc. the Contractor should ensure that the power is restored at the earliest possible time. Such co-ordination activity will be deemed to be covered under the price quoted by the Contractor.
- b) Utmost Care should be taken so that the system does not lead to major breakdown and in case the system goes into fault, it should be rectified within the shortest time period.
- c) The Servicing work is to be carried out through authorized person only and in presence of Electrical Contractor or his licensed supervisor.
- d) Shutdown will be provided by IIT Goa however prior details of activity chart is to be provided by the Contractor.
- e) The maintenance kit shall be provided by the contractor. Rates shall be inclusive in the quote rate of items. Nothing extra shall be paid on this account.
- f) No charge shall be payable by the department on account of any consumables, tools, all type of labour cost, Service Engineer visits and sundry material etc required at Site.
- g) The re-commissioning reports is to be signed by the Authorized Service Provider, Electrical Contractor and Engineer IIT Goa. No payment shall be made unless the reports are submitted.
- 15. All dismantled or scrap or rejected materials shall have to be removed by the contractor at his own cost within 15 days of the instructions of doing so. Failing to which godown rent as decided by Engineer-in-Charge may be charged by the department. Nothing extra shall be paid on this account other than as mentioned in Schedule of Work.

#### 16. Guarantee/Warrantee/Defect Liability Period:

- The installation will be handed over to the department after necessary testing and commissioning.
- The LED light luminaries/ fixtures provided under the contract shall be guaranteed for a period of 2 years. 50% of the performance guarantee shall be refunded to the contractor soon after the completion of the work and recording of the completion certificate. 50% of the performance guarantee shall be retained as security deposit. 50% of the performance guarantee retained as security deposit plus 2.5 % security deposit already deducted from running bills (i.e. 2.5 + 2.5 = 5%) which shall be refunded after Guarantee/Warrantee period from the date of completion/ handing over whichever is later. In this regard, contractor shall furnish an undertaking and bond for Guarantee/Warrantee of 2 years.
- All other work carried out under this contract with all associated accessories are to be guaranteed for trouble free operation, maintenance and service. The warranty should cover defects due to faulty manufacture, workmanship or material for 1 year from the date of commissioning and handed over with the requisite documentation. Any manufacturing defect or faulty workmanship found in the equipment's or components, or any part thereof so found defective during this period shall be repaired/ replaced by the Contractor free of cost to the satisfaction of the Engineer-in-Charge and as per terms and conditions of NIT/ agreement executed with IIT Goa.
- In case it is felt by the Institute that the contractor is causing undue delays in addressing defects/replacing parts or not commenced or completed supplies, then, the same will be got done by the Institute at the risk and cost of the contractor, with 10 days' notice. Any additional expenses will be deducted from the contractor's bill or performance guarantee or security deposit. The decision of Engineer-In-Charge in this regard shall be final.
- 17. The Contractor is required to submit the Guarantee/Warranty Certificate of LED light luminaries/ fixtures issued by OEM, failing which the RA bills shall not be payable.



#### FORM - A

## **FINANCIAL INFORMATION**

I.	account for the la	is - Details to be a ast five financial ye ncome Tax Depart	ears duly certified	by the Chartered	•
	Financial years				
	Gross Annual Turn Over				
	Profit/Loss				

Signature of Chartered Accountant
Name of Chartered Accountant
Membership No. of ICAI
Date and Seal

Signature of Bidder(s)

II. Financial arrangements for carrying out the proposed work.



#### FORM - B

#### DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

S.	Name	Owner or	Cost	Date of	Stipulated	Actual	Litigation	Name	Wheth
					-		Liligation		
No.	of	sponsoring	of	comme	date of	date of	/	and	er the
	work/	organizatio	work	n	completio	completio	arbitratio	address/	work
	project	n	in	cement	n	n	n cases	telephon	was
	and		crore	as per			pending/	е	done
	locatio		s of	contrac			in	number	on
	n		rupee	t			progress	of officer	back to
			S				with	to whom	back
							details*	referenc	basis
								e may	Yes/
								be	No
								mad	
								е	
1	2	3	4	5	6	7	8	9	10
		l							

<sup>\*</sup> Indicate gross amount claimed and amount awarded by the Arbitration Tribunal.

Signature of Bidder(s)



#### FORM - C

#### **ORGANIZATION STRCUTURE**

- 1. Name & address of the bidder
- 2. Telephone no./Telex no./Fax no.
- 3. Legal status of the bidder (Scan & upload copies of original document defining the legal status)
  - (a) An Individual
  - (b) A proprietary firm
  - (c) A firm in partnership
  - (d) A limited Company or Corporation
- 4. Particulars of registration with various Government Bodies (Scan & upload attested photocopy)

S. No.	Organization/Place of registration	Registration No
1		
2		
3		

- 5. Names and titles of Directors & Officers with designation to be concerned with this work
- 6. Designation of individuals authorized to act for the organization
- 7. Has the bidder, or any constituent partner in case of partnership firm, limited company / Joint Venture, ever been convicted by the court of Law? If so, give details
- 8. In which field of Civil Engineering construction the bidder has specialization and interest?
- 9. Any other information considered necessary but not included above

Seal & Signature of Bidders



#### FORM - D

## $\frac{\texttt{PARTICULARS} \ \texttt{FOR} \ \texttt{REFUND} \ \texttt{OF} \ \texttt{EMD} \ \texttt{TO} \ \texttt{SUCCESSFUL/UNSUCCESSFUL}}{\texttt{BIDDER}}$

1	Name	e of Bidder	
2	Perm	nanent Account Number (PAN)	
3	Partio	culars of Bank Account	
	a)	Account No.	
	b)	Name of Account Holder	
	c)	Name of Bank	
	d)	IFSC/NEFT/RTGS Code	
	e) Type of Account		
	f)	Bank Branch Address	
	g) City Name		
	h) Telephone No./Mobile No.		
4	Emai	il id of the bidder	
5	Telep	phone No./Mobile No. of bidder	

Note: Please attach original cancelled cheque along with RTGS/NEFT mandate form.

Seal & Signature of Bidders



## FORM - E

(To be submitted on Non-Judicial Stamp Paper of Rs. 100/-)

## **UNDERTAKING**

I/we hereby certify that the	ial misappropriation/frauds etc. by any
I/we undertake and confirm that eligible work(s) has/ have not been g on back-to-back basis. Further that, if such violation comes to the r liable for appropriate panel action as decided by Institute i/c forever.	notice of Institute then. I/we shall be
Also, if such a violation comes to the notice of Institute before date of shall be free to forfeit the entire amount of Earnest money deposited.	•
I also certify that the information given in the bid is true and correct in date it is found that any detail/s provided are false and incorrect, an participation may be summarily terminated at any stage, the firm will b any action as per rules.	y contract given to the concern firm or
Date:	Name :
Place:	Business Address :
Signature of Bidder :	
Seal of the Bidder :	
Notary seal and sign:	



#### FORM - F

(Willingness letter to be printed on the letter-head of the Licensed Contractor to whom the license is issued by the Govt. of Goa)

## **WILLINGNESS FOR SUPERVISION**

I, Shri	, proprietor/owner of the firm M/s	having valid MV contractor license
No.	from Govt. of Goa. Do hereby submit my v as per the NIT No, dtd a	willingness that the Electrical work named
Ponda shall b	be carried out under my supervision in case the wong as a bidder for the said work as stated above (N	ork is awarded to M/s who
	ertake that the work shall be carried out as per the tes/local rules/notices of Goa Electricity Dept, Govt	
of M/s of work. It is	dertake that I will not claim any payment from IIT G I undertake that my license is valid/sha clearly understood that the work of supervision of and I will not have any claim/payment whatsoe	Il remain valid during the period of execution done by me is on behalf of the bidder M/s
of this work.	, , ,	<b>3</b> , 1
Signature wi	ith Date:	
Official Seal	:	
	ntractor's license he bidder and the ler.	



Appendix - 'A'

#### **ARTICLE OF AGREEMENT**

(To be executed on non-judicial stamp paper of Rs.500/-)

Agreement No:	Dated:

#### CONTRACT FOR THE WORK OF <name of work>

ARTICLE OF AGREEMENT made at Indian Institute of Technology Goa, this (Date of Agreement), (Two thousand twenty three), BETWEEN Indian Institute of Technology Goa, an Institute of National Importance under The Institute of Technology Act, 1961 (here in after referred to as the Institute or IIT Goa) which expression shall include its Successors and assigns and all the persons for the time being in management of the Institute of the one part and (M/s Name of the Agency with Address) trading in the name and style of xxxxxxxxx (hereinafter referred to as the contractor(s)) which expression shall include his/their respective heirs, executors, administrator and assign/its successors and assigns other part.

WHEREAS IIT Goa is desirous of getting the work of ("Name of the work") at IIT Goa, GEC Campus, Farmagudi, Ponda, Goa - 403401 done and has caused drawings, schedule of quantities and specifications describing the work to be prepared.

AND whereas the said drawing numbered one to xxxxxxxxxxxxxxxx inclusive of specifications and the priced schedule of quantities have been signed by or on behalf of the parties hereto.

AND whereas the contractor has deposited cash in bank through (<u>Payment Form & Details</u>) with IIT Goa as a security for the due performance & EMD respectively of this agreement as provided in the said condition.

NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOW:

- 1. In consideration of the payments to be made to his as hereinafter provided, the contractor's shall upon and subject to the conditions herein contained and the said conditions, execute and complete the work shown upon the said drawings and such further detailed drawings as may be furnished to him and described in the said Specifications and the said price schedule of quantities within (<u>Time Period of Work</u>) from the date of order to commence work.
- 2. IIT Goa shall pay to the contractor such sums as shall become payable hereunder at the time and in the manner specified in the terms & conditions.
- 3. Time is the essence of this agreement and the contractor shall pay or allow IIT Goa the sum (as per NIT document) as liquidated damages for the period during which the said works shall remain incomplete beyond the time allowed in clause (1) above or beyond the time duly extended in writing as per due to the contractor.
- 4. The term Engineer in the said conditions shall mean the Engineer, IIT Goa or in the event of this agreement such other persons as shall be nominated for that purpose by IIT Goa will be the Engineer-In-



Charge for the work. Directions given or expressed in writing by the Engineer-In-Charge from time to time shall be binding.

- 5. The plans, agreement and documents above mentioned shall form the basis of this agreement and the decision of the said engineer or the other engineer for the time being as mentioned in the said conditions, in reference to all matters of dispute as to material and workmanship shall be final and binding on both the parties.
- 6. IIT Goa, through the Engineer reserves to himself the right of altering the drawings and of adding or omitting any items or work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall not vitiate this agreement.
- 7. This Agreement comprises the work above and all subsidiary works connected therewith, even though such works may not be shown on the drawings, or described in the said specifications or the priced schedule of quantities.
- 8. All disputes and difference of any kind whatsoever except as excluded by Clause 6 arising out of or works (whether during the progress of the work or after their completion and whether before or after the determination, abandonment or breach of the contract) shall be amicably settled or referred to dispute resolution committee. In exceptional cases, disputes shall be referred to conciliation/mediation/arbitration as per clauses of contract. The provisions of the law applicable to conciliation/mediation/arbitration for or any statutory modification or reenactment thereof and of the rules made there-under for the time being in force shall apply to said proceedings under this clause. The sole conciliator/mediator/arbitrator shall be decided by the Director, IIT Goa which shall be accepted by the party.
- 9. All the terms & Conditions & specifications stated in the offer of the contractor and work order issued by IIT Goa shall be an integral part of the agreement.

In witness whereof the parties hereto have set their respective hands the day and the year herein above written.

Signed by the said Contractor: In the presence of
(1)
(2)
Signed by for and done behalf of IIT Goa:
The presence of
(1)
(2)



## Appendix – 'B'

## **LIST OF PREFERRED MAKES**

S. No.	Material	Make				
1	MCCBs	SIEMENS, L&T, SCHNEIDER, LEGRAND, ABB, HAGER.				
2	MCB, ELCB, RCCB, DB, and RCBO, DB board shall be of same make of MCB,ELCB, RCCB, DB, RCBO.	SIEMENS (BETA GUARD), L&T (AU), SCHNEDIER (ACT 9), LEGRAND (DX 3), ABB (ELEGANCE), HAGER.				
3	LT Cables, 1.1 KV Grade.	Havells/Finolex/KEI/Grandley/RR Kabel/Polycab				
4	FRLS Cooper wires and cables, 1.1KV grade.	Havells/Finolex/KEI/Grandley/RR Kabel/Polycab				
5	Switch, socket, Dimmer (Regulator), call bell and accessories etc.	LEGRAND(MYRIUS), SCHNEIDER(ZENCELO), MK (ELEMENTS), HAGER (INSYSTA), CRABTREE (MURANO), ABB (CHERION).				
6	Lugs and Ferrules	DOWELLS, JAINSON				
7	Brass Compression Gland (Heavy duty)	COMMEX, GRIPWELL, HENSEL				
8	Cable Lugs & Thimbles	DOWELL, ASIAN, ACTION				
9	PVC Conduits and Accessories (ISI Marked, Heavy duty)	BEC, PRECISION, POLY-PACK, AKG, POLYCAB				
10	MS Conduit and Pipes	BEC, AKG, M-KAY, STEEL CRAFT, RMCON				
11	MS Conduit Accessories (Heavy duty)	BEC, AKG, M-KAY, STEEL CRAFT, RMCON				
12	Pipes and Accessories (ISI)	TATA, JINDAL, SAIL				
13	Street /landscape LED Light Fixtures	PHILIPS, CROMPTON, WIPRO, HAVELLS, SCHREDER, OSRAM.				
14	Selector Switch	RISHAB – L&T, KAYCEE, SIEMENS, C&S,ABB				
15	kWh Meters (Electronic Digital type) Multifunction Meter /Ammeter/ Voltmeter)	SCHNEIDER(CONZERV), C&S, L&T, SIEMENS, NEPTUNE, ABB, SECURE				
16	Timers & Contactors to be mounted in DB's	L&T, SIEMENS, SCHNEIDER, HAGER, LEGRAND				
17	LED Indication Lamps/Push Button	ESBEE/Schneider/Siemens/Vaishno/L&T/BCH/GE				
18	Ceiling Fan/Exhaust Fans/BLDC Fan/Wall fan	CROMPTON GREAVES, ORIENT, HAVELLS, PHILIPS, ATOMBERG, HAVELLS				
19	Driver/SPD	PHILIPS, WIPRO, CROMPTON, OSRAM, HAVELLS				
20	Indoor Led Light Fixture ( 2x2, 1x1, Batten, Bulb etc) of all kind Surface	Havells/ Phillips/ Crompton Greaves/ Osram/Jaquar/ Surya/ Trilux/ Lighting Technology/ Bajaj				



	/recess mounted square /Circular Mirror Light/Down lighter LED fitting	
21	Outdoor LED light or Street light and other accessories of all kind	Havells/ Phillips/ Crompton Greaves/ Osram/Jaquar/ Surya/ Trilux/ Lighting Technology/ Bajaj
22	Polycarbonate Junction Boxes	HENSEL, CLIPSAL, MENEKKES
23	Fasteners	HILTI, FISCHER, BOSCH, WUNH
24	DWC Pipe	Tirupati, Gemini, Rex ,TRICOLITE
25	Sealed Maintenance free Batteries	EXIDE, AMARON QUANTA
26	DLP/ PVC Trucking	Legrand, Honeywell , Cooper, MK.
27	Ceiling/Exhaust Fan spares and accessories	Havells/ Almonard/ Orient/ Usha/ Bajaj/ Crompton
28	Fan condenser	ISI Marked.
29	Street Light Contactor	Siemens (Sicop)/L&T (MNX)/Schneider (Tesys)/Legrand (CTX 3)/ ABB(Ax)/ C&S.
30	FRLS PVC insulated copper conductor stranded flexible wire i/c control cables	Havells/Finolex/KEI/Grandley/RR Kabel
31	C.Ts. and P.Ts	AE, GILBERT, PRECISE, KAPPA
32	HT/LT Cable Joints Straight Through/Outdoor/indoor).	3M/Denson/G-Seal.
33	Geysers Element /thermostat	ISI Marked.
34	GI pipes	JINDAL (Hissar), TATA, SAIL
35	Din Rail Connector	LEGRAND, SCHNEIDER, ABB, L& T, Siemens.
36	Portable Fire Extinguishers	CANEX/ SAFEX/ CEASE FIRE/ SUPEREX/ FIRE GUARD
37	AMF Panel	POWERICA
38	Water Cooler Cum Purifier	Eureka Forbes, Bluestar, Usha

#### Note:

- Material make list should be as per above table until or unless individual items model no. specified in BOQ.
- 2) Engineer-in-Charge reserves the right to add or delete any material and brands in the list of preferred material/brands.



## **SCHEDULE OF QUANTITIES**

Sr. No.	Particular	Unit	Qty	Rate	Amount	Remarks
	SH: Wiring					
1	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc.as required.					
1.1	3 Module	each	30	₹347.70	₹10,430.97	DSR E&M 1.27.2
1.2	6 Module	each	280	₹427.45	₹119,685.05	DSR E&M 1.27.4
2	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
2.1	5/6 A switch	each	370	₹109.52	₹40,522.36	DSR E&M 1.24.1
2.2	3 pin 5/6 A socket outlet	each	640	₹129.72	₹83,022.46	DSR E&M 1.24.4
2.3	15/16A switch	Each	20	₹165.87	₹3,317.50	DSR E&M 1.24.3
2.4	6 pin 15/16 A socket outlet	Each	20	₹209.47	₹4,189.40	DSR E&M 1.24.5
3	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.					
3.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	600	₹292.41	₹175,444.50	DSR E&M 1.14.2
3.2	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	metre	300	₹570.99	₹171,297.63	DSR E&M 1.14.8
4	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)					
4.1	8 way (4 + 24), Double door	each	2	₹10,808.00	₹21,616.00	DSR E&M 2.5.2
5	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	5	₹1,723.61	₹8,618.05	DSR E&M 2.18
6	Supplying and fixing 25 mm dia. MS flexible pipe with PVC coating along with all ancillaries and accessories like coupler etc. as required.		25	₹56.35	₹1,408.87	DSR E&M 17.54
7	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	20	₹392.36	₹7,847.15	DSR E&M 1.25
8	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.		20	₹42.53	₹850.64	DSR E&M 1.26
	SH: Fans					
9	Dismantling of ceiling fan and painting the same with with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even	Job	87	₹277.52	₹24,144.35	DSR E&M 1.59



shade, including cleaning of surface with detergent and replacing the damaged rubber reel, nuts and bolts with washers and safety pins/fan hook, reinstalling the same as required.					
Servicing of ceiling fans including replacement of capacitor, oiling, greasing etc as required	Job	87	₹275.00	₹23,925.00	MR
Supply of heavy duty exhaust fans (metal type) 230 mm sweep	Each	20	₹1,476.00	₹29,520.00	MR
Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required (upto 450 mm sweep)	Each	20	₹478.49	₹9,569.70	DSR E&M 1.50.1
SH: Lighting Fixtures					
Supply, installation, testing and commissioning of 2 ft x 2 ft LED 36 watt panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.		168	₹4,511.00	₹757,848.00	MR
Supply, installation, testing and commissioning of 20 watt LED batten including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.	Each	20	₹614.00	₹12,280.00	MR
Supply, installation, testing and commissioning of 20 watt 1 ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.	Each	32	₹3,133.00	₹100,256.00	MR
Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.	Each	10	₹281.00	₹2,810.00	MR
SH: Compound Lighting					
Supplying installation, testing & commissioning of LED street light fitting 60 W having minimum lumen output of 6000 lumens and a minimum efficacy of 100 lm/W, made of high pressure die cast aluminium alloy housing and shall have toughened glass cover with silicon gasket for IP 66 protection, with CCT of 5700K and CRI>70, surge protection shall be 3KV. The luminaire shall have rating with THD<10% and PF>0.95. The luminaire shall have two separate compartments for LED's and driver, both compartments shall be hermetically sealed to achieve IP 66 protection including connection with near by power outlet complete as required.	Each	25	₹5,910.00	₹147,750.00	MR
Supplying, installation, testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.					
1 output per phase and suitable for single phase supply	Each	1	₹4,666.82	₹4,666.82	DSR
Supplying installation, testing & commissioning of water cooler cum water purifier with storage facility of UV 80 LPH made out of SS 304 as per IS 1475 (Part 1) with two faucet, one for normal purified water and one for chilled purified water, suitable for operating on 230 voltage, including connection to nearest power outlet complete as required.	Each	2	₹95,580.00	₹191,160.00	MR
	replacing the damaged rubber reel, nuts and bolts with washers and safety pins/fan hook, reinstalling the same as required.  Servicing of ceiling fans including replacement of capacitor, oiling, greasing etc as required  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required (upto 450 mm sweep)  SH: Lighting Fixtures  Supply, installation, testing and commissioning of 2 ft x 2 ft LED 36 watt panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt LED batten including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt 1 ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  SH: Compound Lighting  Supplying installation, testing and commissioning of LED street light fitting 60 W having minimum lumen output of 6000 lumens and a minimum efficacy of 100 lm/W, made of high pressure die cast aluminium alloy housing and shall have toughened glass cover with silicon gasket for IP 66 protection, with CCT of 5700K and CRI>70, surge protection, with CCT of 5700K and CRI>70, surge protection, with CCT of 5700K and CRI>70, surge protection, with compartments for LED's and driver, both compartments shall be hermetically sealed to achieve IP 66 protection including connection with near by power outlet complete as required.  Supplying, installation, testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DB	replacing the damaged rubber reel, nuts and bolts with washers and safety pins/fan hook, reinstalling the same as required.  Servicing of ceiling fans including replacement of capacitor, oiling, greasing etc as required  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning good the damage, connection, testing, commissioning good the damage, connection, testing, commissioning good the damage, connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 2 ft x 2 ft LED 36 watt panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt 1 ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  SH: Compound Lighting  SH: Compound Lighting  Supplying installation, testing & commissioning of LED street light fitting 60 W having minimum lumen output of 6000 lumens and a minimum efficacy of 100 lm/W, made of high pressure die cast aluminium alloy housing and shall have toughened glass cover with silicon gasket for IP 66 protection, with CCT of 5700K and CRI>70, surge protection shall be 3KV. The luminaire shall have traing with THD<10% and PF>0.95. The luminaire shall have two separate compartments for LED's and driver, both compartments shall be hermetically sealed to achieve IP 66 protection including connection with near by power outlet complete as required.  Supplying, installation, testing and commissioning of water complete as required.  Supplying installation, testing and commissioning of water complet	replacing the damaged rubber reel, nuts and bolts with washers and safety pins/fan hook, reinstalling the same as required.  Servicing of ceiling fans including replacement of capacitor, oiling, greasing etc as required  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required (upto 450 mm sweep)  SH: Lighting Fixtures  Supply, installation, testing and commissioning of 2 ft x 2 ft LED 36 watt panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earthing etc. as required.  Supply, installation, testing and commissioning of 20 watt LED batten including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earthing etc. as required.  Supply, installation, testing and commissioning of 20 watt 1ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earthing etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earthing etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earthing etc. as required.  Supplying installation, testing & commissioning of LED street light fitting 60 W having minimum lumen output of 6000 lumens and a minimum efficacy of 100 lm/W, made of high pressure dic cast aluminium alloy housing and shall have toughened glass cover with silicon gasket for IP 66 protection, with CCT of 5700K and CRI>70, surge protection shall be 3KV. The luminaire shall have two separate compartments for LED's and driver, both compartments shall be hermetically sealed to achieve IP 66 protection including connection with near by power outlet complete as required.  Supplying, installation, testing	replacing the damaged rubber reel, nuts and botts with washers and safety pins/fan hook, reinstalling the same as required.  Servicing of ceiling fans including replacement of capacitor, oiling, greasing etc as required  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required (upto 450 mm sweep)  Sh: Lighting Fixtures  Supply, installation, testing and commissioning of 2 ft x 2 ft LED 36 watt panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt LED batten including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt 1ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 20 watt 1ft x 1 ft LED type panel light including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm. FRLS Copper conductor single core cable i/c earhting etc. as required.  Supply, installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm.  FRLS Copper conductor single core cable i/c earhting etc. as required.  Supplying installation, testing and commissioning of 12 watt LED type bulb including making connection with 1.5 sqmm.  FRLS Copper conductor single core cable i/c earhting etc. as required.  SH: Compound Lighting  Supplying installation, testing and commissioning of Actornomical bulb and the properties of the pro	replacing the damaged rubber reel, nuts and bolts with washers and safety pins/fan hook, reinstalling the same as required.  Servicing of ceiling fans including replacement of capacitor, oling, greasing etc as required  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Supply of heavy duty exhaust fans (metal type) 230 mm sweep  Supply installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required (upto 450 mm sweep)  SH: Lighting Fixtures  Supply, installation, testing and commissioning of 2 ft x 2 ft to 3 ft x 2 ft to 3 ft x 2 ft to 3 ft x 3 ft to 3 ft



	SH: Fire Extinguishers					
20	Providing & Fixing of stored pressure Fire Extinguisher ABC powder type (Mono Ammonium Phosphate Powder) as per IS 2190 Magnetic Pressure Gauge having the facility to check at site, Discharge Time less than 9 Secs, Controllable discharge mechanism, Range minimum 4 Meters, applicable on Class A,B,C and electrically started Fire, A Rating- 21A, B Rating 55B as per BS EN-3 BIS 15683 marked, Can Construction: Deep drawn & CO2 Mig welded, Valve Construction: Forging & Machining, Internal Coating of Can: Epoxy Powder coating, External Coating of Can: Epoxy Polyester Powder coating, Sheet metal thickness: 1.60MM, Helium Leak Detection Tested, Warranty	each	15	₹3,000.00	₹45,000.00	MR
21	Supply and installation of 4.5 kg capacity CO2 type fire extinguisher consisting of welded M.S. cylindrical body, internal discharge tube, discharge nozzle, suspension bracket, conforming to IS 2878, finished externally with red enamel paint and fixed to wall with brackets complete with internal charges.	each	15	₹5,500.00	₹82,500.00	MR
	SH: External Electrical Works					
22	Supplying of PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade Aluminium conductor and armoured.					
22.1	3.5 core x 70 Sq.mm	meter	100	₹699.60	₹69,960.00	MR
23	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.					
23.1	Above 35 sq. mm and upto 95 sq. mm	meter	30	₹430.64	₹12,919.10	DSR E&M 7.1.2
24	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.					
24.1	Above 35 sq. mm and upto 95 sq. mm (clamped with $25\mathrm{x3mm}$ MS flat clamp)	meter	70	₹138.23	₹9,676.03	DSR E&M 7.7.2
25	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
25.1	3½ X 70 sq. mm (38mm).	each	4	₹497.62	₹1,990.50	DSR E&M 9.1.23
26	Supply, installation, testing and commissioning of single compartment wall mounted indoor type panel, made out of minimum 2 mm thick CRCA sheet steel duly phosphatised and powder coated painting suitable for three phase 415 V, 50 Hz system, IP55 minimum, including 125 Amps FP MCCB with thermomagnetic release and terminal spreaders, drilling holes in cubicle panel, making connections with incoming and outgoing cable, etc. as complete required	Each	2	₹24,094.00	₹48,188.00	MR
27	Supply, installation, testing and commissioning of AMF panel suitable for 62.5 kVA DG set, compartmentalised floor mounted (mounted on structural steel of equal angle of 50 mm X 50 mm X 6 mm complete with fabrication, painting, and grouting etc.) outdoor type panel, double door, double roof made out of minimum 2 mm thick CRCA sheet steel duly phosphatised and powder coated painting	Each	1	₹120,109.95	₹120,109.95	MR



	suitable for three phase 415 V, 50 Hz system, IP55 minimum, including breakers of suitable capacity for DG incomer, Grid incomer and Outgoing from AMF panel, making connections with incoming and outgoing cable, etc. as complete required. (Make - Powerica)					
28	Replacement of 12V, 65AH Capacity battery of 62.5 kVA DG Set under buyback offer	Each	1	₹13,751.36	₹13,751.36	MR
	SH: Dismanteling work					
29	Disconnection & dismantling of existing exhaust/fresh air fan with blades and louver shutter (as applicable) from wall etc. as required		20	₹144.74	₹2,894.87	MR
30	Disconnection & dismantling of existing fluorescent tube fitting/CFL fittings/Panel lights/downlights/Street lights from wall/ceiling etc. as required.		245	₹128.00	₹31,360.00	MR
31	Removing of old casing/capping and wires irrespective of size as required	RM	250	₹64.00	₹16,000.00	MR
32	Redressing of old DB wiring as per directions of EIC and terminating the wires if required.	Job	5	₹256.00	₹1,280.00	MR
33	Removing of old 5/6 Amp and/or 5/16 Amp switch/socket etc as required	Job	20	₹144.74	₹2,894.87	MR
	SH: Substation					
34	Repairing of 315 kVA Transformer which includes draining oil, removing of top cover, removing of core/winding, ovening & vacuuming for improving IR value of winding, repairing of main tank & rectification work of all oil leakages, replacement of complete gasket with new one, reassembly of winding and fixing of core/winding, reinstallation of top cover, re-connection of HT/LT terminal, testing of transformer and issue of clearance certificate and commissioning complete in all respects as per IS norms and industry standards. The job includes cost of arrangement of Crain for unloading/loading of transformer, transportation of transformer from site to workshop and back & reinstallation of transformer at site by crane.	Job	1	₹177,000.00	₹177,000.00	MR
35	Cleaning, supplying and applying of two or more coats of spray painting on complete transformer body, radiator and conservator of 315 kVA Transformer with one coat of primer & two coat of enamel smoke grey paint etc complete in all respects as per IS norms and industry standards.	Job	1	₹26,196.00	₹26,196.00	MR
36	Supplying & Filling of dehydrated filtered transformer oil as per IS norms with minimum 50 kV BDV upto the required level of transformer and as reqd, as per standard practice and directions of Engineer-In-Charge.	l tr	500	₹223.02	₹111,510.00	MR
37	Replacement of worn out silica gel with new silica gel for the breather of Transformer complete as required, as per standard practice and directions of Engineer-In-Charge.		1	₹997.10	₹997.10	MR
38	Reconditioning of existing installed 20/5A Current Transformer which includes testing, ovening & vacuuming for improving IR value, applying of insulation/anti-tracking spray, re-testing & re-commissioning and issue of certificate etc complete in all respects for smooth functioning as per IS norms and industry practice.	Job	3	₹3,964.80	₹11,894.40	MR
39	Reconditioning of existing installed 11kV Potential Transformer which includes testing, ovening & vacuuming for improving IR value, applying of insulation/anti-tracking spray, re-testing & re-commissioning and issue of	Job	3	₹3,964.80	₹11,894.40	MR

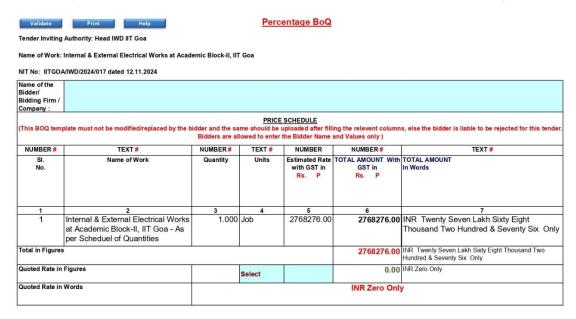


	certificate etc complete in all respects for smooth					
	functioning as per IS norms and industry practice.					
40	Servicing of 11 kV Cubical Metering Panel which includes repairing of opening doors and cleaning of full cubical metering unit, cleaning of CT, PT & cable terminal, Application of HT tape to cable terminal, Application of Anti tracking spray to CT PT & cable terminal, insulation coating of bus bar and cable terminal, supplying and applying two coats of spray painting with approved colour on the body of Cubical Box along with testing & commissioning complete in all respects for smooth functioning as per IS norms and industry practice and directions of Engineer-In-Charge	Job	1	₹37,800.00	₹37,800.00	MR
41	Servicing, Oiling & Greasing of 11 kV AB Switch and DO Switch installed at DP Structure including Testing and Commissioning etc complete in all respects for smooth functioning as per IS norms and industry practice	Set	2	₹5,380.80	₹10,761.60	MR
42	Maintenance & Testing of Earthing System of 11kV Substation based on IS standards including testing of earth pits, chemical/salt/charcoal filling, continuity test of earth strip/conductor from the earth pit to the earth terminal of electrical equipment, as reqd on site, as per standard practice and directions of Engineer-In-Charge	Job	16	₹849.60	₹13,593.60	MR
43	Supply & Fixing of Space heater between CTs and Bus bar as per directions of Engineer-in-Charge	Nos	2	₹1,203.60	₹2,407.20	MR
44	Replacement of defective lugs & nuts bolts in the 11 kV DP Structure and allied equipments wherever required as per directions	Nos	20	₹212.40	₹4,248.00	MR
45	Supplying and applying two coats of painting with approved colour in the switchyard fencing and DP Structure etc where required complete in all respects for smooth functioning as per IS norms and industry practice and as per directions of Engineer-in-Charge	Job	1	₹21,600.00	₹21,600.00	MR
	SH: Less buyback discount on old accessories, fans & fittings, wiring					
46	Exhaust fans 230mm	Each	20	-₹147.60	-₹2,952.00	MR
47	2 ft x 2 ft CFL type panel light	Each	168	-₹305.00	-₹51,240.00	MR
48	T5 fitting LED/Convention	Each	20	-₹41.49	-₹829.80	MR
49	1 ft x 1 ft LED type panel light	Each	32	-₹211.86	-₹6,779.66	MR
50	Halogen/sodium vapour type/LED street light	Each	25	-₹399.60	-₹9,990.00	MR
51	5/6 Amp or 15/16 Amp switch; 3 pin 5/6 Amp or 3 pin 15/16 Amp socket outlet	Each	20	-₹2.00	-₹40.00	MR
52	Old PVC casing/capping	RM	250	-₹2.00	-₹500.00	MR
	Total including GST				₹27,68,275.97	
	Say				₹27,68,276.00	



#### **Price Bid/Financial Bid**

#### (This sheet is to be filled and submitted with Financial Bid Only)



- 1. No labour huts shall be allowed in IIT Campus and nothing shall be paid extra on this account.
- 2. The contractor must visit the site of work /buildings before quoting the rates.
- 3. No labour to stay in IIT Campus. Nothing shall be paid extra on this account.
- 4. Site shall be made available as and when available.
- 5. The rates for different items of work shall apply for all Heights/ Lifts & Depths (Internal or External) /Leads and nothing extra shall be paid on these accounts.
- 6. Bamboo ladder, scaffolding, jhula, ladders etc. to carryout works at all heights/lifts shall be arranged by the contractor at his own cost. Nothing extra shall be paid on these accounts.
- 7. Site shall be available in parts or phases as per directions of Engineer in Charge and nothing extra on this account shall be paid to the contractor.
- 8. Rate quoted by the contractor shall be inclusive of GST, freight charges etc. Nothing extra on this account shall be paid to the contractor.

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