



INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR
KHARAGPUR, WEST BENGAL 721302

E-TENDER DOCUMENT
(2nd call)

for

**Electrical Maintenance and Renovation Work in Wave
Energy Laboratory of OENA Department IIT Kharagpur.**

**Notice Invitation Tender Serial No. IIT/IW/EM/NIT/96/2025-26 dated-
29.04.2026**

Tender Serial No. _____ Issued to:

.....
.....
.....



Contents

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR



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NOTICE INVITING TENDER

1.1. INTRODUCTION

Indian Institute of Technology (IIT) Kharagpur, hereinafter called IITKGP, invites sealed tenders from the eligible contractors for "Electrical Maintenance and Renovation Work in Wave Energy Laboratory of OENA Department IIT Kharagpur" Particulars of the project are as following.

1.2. PARTICULARS

1.NIT Number	NIT No.: IIT/IW/EM/NIT/96/2025-26
2.Name of Work	Electrical Maintenance and Renovation Work in Wave Energy Laboratory of OENA Department IIT Kharagpur.
3.Location of Work	IIT Kharagpur. Kharagpur-721302
4.Estimated Cost (including GST)	₹ 20,10,028/- (Rupees Twenty lakh ten thousand twenty eighty only)
5. Time Limit for Execution	90 days from date of start.
6.Tender Basis and Mode	Two stage (Technical Bid & Financial Bid)
7. Earnest Money Deposit	Rs. 40200/- (Rupees Forty thousand two hundred only)
8. Mode of Payment to IITKGP(EMD/Tender fee)	i) Original Demand Draft/Pay Order/BG has to be submitted physically at the office of SE (E&M) on or before the due date/extended date of submission of bid. & Scanned copy of Demand Draft/Pay Order has to be uploaded on https://eprocure.gov.in/eprocure/app ii) Demand Draft/Pay order/BG to be drawn in favour of IIT KHARAGPUR payable at Kharagpur.
09.Closing Date & Time for Receipt of bids	19th May, 2026 up to 11:00 AM
10.Date& Time for Opening Technical of Bid	20th May, 2026 at 11:30 AM
11. Date& Time for Opening of Price Bid	To be informed later to the successful bidder
12. Engineer-in-charge and contact details.	Mr. L.S Mandal, Engineer (Electrical) Tel: 03222-282532, Email: lxmi2@yahoo.in
13. Address for tender issue, submission and opening	Office of the Superintending Engineer (E&M), 1 st Floor, Old Building, IIT Kharagpur, Kharagpur WB 721302
14. Website for full and updated information	https://www.iitkgp.ac.in/tenders https://eprocure.gov.in/eprocure/app
15. Website for tender submission & processing	https://eprocure.gov.in/eprocure/app
16. Defect liability Period	Defect liability period will be 01 (One) years from date of completion.

1.3. ELIGIBILITY CRITERIA

- 1.3.1. The bidder must be registered in appropriate class of works with Government organization like CPWD/ PWD/ MES or PSUs or OEM or Authorized supplier and installer of OEM (Authority must be signed by OEM official not lower than General Manager or equivalent in corporate structure or those having experience in similar nature of works awarded by Government / Semi Government Organizations/ Government Funded Autonomous Organization.
- 1.3.2. The bidder must have done at least 1 (ONE) similar work of value of 80% of the estimated cost or 2 (TWO) similar works for projects each of value 60% of the estimated cost or 3 (THREE) similar work for projects each of value 40% of the estimated cost with Government/ Semi-government/ PSU/ Government Funded Autonomous Organization during last 7 (seven) years preceding last date of the month of tender submission.

Note:

- (i) The estimated cost is Rs. 20,10,028/- (Rupees Twenty lakh ten thousand twenty eighty only)
 - (ii) 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 the last date of receipt of applications for tender.
 - (iii) Similar works shall mean: Electrical Maintenance works.
- 1.3.1 The bidder must be **registered** with appropriate government authority as a **bonafide business entity** and must have **GST registration** certificate and **Permanent Account Number** of income tax.
 - 1.3.2 The contractor must have **updated Electrical Contractor License, GST, PAN No and Supervisory Competency Certificate**.
 - 1.3.3 **The validity of the registrations and licenses should be valid as on the date of tender submission and during of execution time.**
 - 1.3.4 **Average annual turnover** of the bidder as per **ITCC or profit & loss statement** shall not be less than 30% of the estimated cost, not having incurred loss in more than two years, during last 5 years ending **31 Mar 2025**.
 - 1.3.5 **Bidder has to submit percentage wise BOQ under Financial Bid section**
 - 1.3.6 **Local Service Center: The Bidder must have Local Service Center in the State of West Bengal or within a radius of 200 KM. Documentary proof should be attached with Technical Bidding documents**



Superintending Engineer (E&M)

On behalf of the Director, Indian Institute of Technology Kharagpur

Copy to:

- 1) Registrar
- 2) Dean, (E&CE)
- 3) Asso. Dean (E&CE)
- 4) Deputy Registrar (F&A)
- 5) Deputy Registrar (Audit)
- 6) Deputy Registrar (S&P)
- 7) Senior Executive Engineer (EW)
- 8) Executive Engineer (EW)
- 9) Engg./Sr. AE/AE/JE/STS/TS/JTS (E&M)
- 10) Notice Board
- 11) Tender Notice uploaded to CPPP portal & Institute Website

2. INFORMATION TO BIDDERS

2.1 SCOPE OF WORK

- 2.1.1 The IIT KGP intends for Electrical Maintenance and Renovation Work in Wave Energy Laboratory of OENA Department IIT Kharagpur.
- 2.1.2 Constraint: The job needs to be executed in Hostel area without causing any disturbances to the normal functioning of routine activities/ road networks.
- 2.1.3 The vendor shall work out execution sequence and methodology so as to complete the project within the envisaged time and the estimated cost, duly handling the constraint mentioned above.

2.2 GENERAL INSTRUCTIONS

- 2.2.1 Bidding documents are to be obtained electronically through websites: <http://www1.iitkgp.ac.in/topfiles/tenders.php>.
ii) <https://eprocure.gov.in/eprocure/app>
- 2.2.2 This bid document shall be read in conjunction with GCC (General Conditions of Contract) available on <http://www1.iitkgp.ac.in/topfiles/tenders.php>.
- 2.2.3 The bidder shall visit and inspect the site and obtain all information on his own responsibility and at own cost, which may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to site conditions and local information shall be accepted after awarding of the contract. Access to the site will be granted by the Engineer-in-charge on all working days within working hours.
- 2.2.4 IITKGP shall not provide any space at site for labour hutments.
- 2.2.5 All clarifications about the tender shall be sought by bidder on or before pre-bid meeting. The bidders may make suggestions which shall be considered during the Pre Bid Meeting. Intending bidder(s) may also send their queries or suggestion, if any, through e-mail to the Engineer-in-charge on Mr. L. S Mandal, Engineer (Electrical) Tel: 03222 - 282532, Email: lxmi2@yahoo.in on or before **19th May, 2026, 10:30 hrs.** No queries shall be entertained after notification of replies to noteworthy queries received till the date of pre-bid meeting.
- 2.2.6 Completion certificate issued by Competent Authority will only be considered as credential. If the Completion certificate issued by Competent Authority does not reflect the type of work, then Final bill / Schedule of Quantity of the qualifying works also to be attached along with the Completion certificates. Certificate from private individuals / organizations for whom such works have been executed shall not be accepted.
- 2.2.7 The bidding document (consisting of specifications, the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract and other documents / drawings, if any), Addendum/Corrigenda, Clarifications to Pre-bid queries can be downloaded from the websites: i) <http://www1.iitkgp.ac.in/topfiles/tenders.php>; ii) <https://eprocure.gov.in/eprocure/app>. Corrigenda, if any shall be published only on these website *sat any time before the closing time of tender*. The institute shall not be responsible for any delay / difficulties / inaccessibility of downloading facility for any reason whatsoever. *The tenderers who have downloaded the tender documents from website must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them. This shall be the responsibility of the prospective registered bidders to check the web site for any such corrigendum/addendum before closing time of tender and ensure that bid submitted by them are in accordance with all the corrigendum's/addendums.*
- 2.2.8 All costs, charges & expenses that may be incurred in connection with the preparation of his tender shall be borne by him and the Institute accepts no liability whatsoever therefore.
- 2.2.9 Rates quoted by the bidders shall be inclusive of GST (Goods and Services Tax - Central, State and Interstate) and all applicable taxes. Income Tax and all other statutory deductions like labourcess etc. will be deducted from the bill as per prevailing rules.
- 2.2.10 Exemption to IITKGP against any tax/ duty/ fee/ surcharge/ charge/ cost, if any, found applicable or sought later from IITKGP after award shall be passed on to IITKGP by the contractor without dispute.
- 2.2.11 IITKGP reserves the right to reject any or all of the bids without assigning any reason.
- 2.2.12 **Bid Validity:** Bid shall remain valid for 120 days from the date of submission.
- 2.2.13 **Firm Price:** Bidder's quoted Rates/Prices for executing the activities under the Contract shall remain firm till completion of the entire work & shall not attract any escalation under any circumstances whatsoever.
- 2.2.14 If any information furnished by the bidder is found as false / fabricated, then his bid will be rejected and treated as cancelled. Even if the such manipulation is detected at any stage after signing of the contract, it would lead to termination of the contract besides forfeiture of Earnest Money Deposit and liabilities towards prosecution. In such cases the bidder will be debarred from participation in future tendering process in IITKGP for next **01 (One) years**.
- 2.2.15 **Earnest Money Deposit (EMD):** As Money Deposit (EMD) of requisite amount and that in prescribed mode or proof of payment thereof shall be enclosed with the Technical Bid explained in following section.

- 2.2.16 Refund / Conversion of Earnest Money Deposit: The Earnest Money received shall be refunded to the unsuccessful bidders without any interest after the opening of financial bids. The Earnest Money Deposit of successful bidder shall be retained and converted into part of Security Deposit.
- 2.2.17 Forfeiture of Earnest Money Deposit: Earnest Money Deposit will be forfeited in any of the following cases:
- 2.2.18 The bidder withdraws / modifies his tender during the period of Bid Validity.
- 2.2.19 The bidder, in case of tie between lowest bids, refuse to submit revised offer.
- 2.2.20 The bidder does not accept the correction of arithmetical errors of his tender.
- 2.2.21 The bidder fails to deposit Performance Guarantee and information as per format given in GCC within the stipulated time period before award of the work.

2.3 SUBMISSION OF TENDER

- 2.3.1 Help for Contractors, FAQ, Information about DSC and Bidders Manual Kit containing the detailed guidelines for e-Procurement system are also available on Central Public Procurement Portal.[<https://eprocure.gov.in/eprocure/app>]
- 2.3.2 It is mandatory for all the bidders to have a valid Class-II/Class-III Digital Signature Certificate (in the name of person having power of attorney to sign the Bid) from any of the licensed Certifying Agency (Bidders can see the list of licensed CA's from the link www.cca.gov.in) to participate in e-Procurement of IIT KHARAGPUR.
- 2.3.3 It is mandatory for the bidders to get their firm /company registered with e-procurement portal <https://eprocure.gov.in/eprocure/app> to have user ID & password.
- 2.3.4 Tender documents will be available online on website <https://eprocure.gov.in/eprocure/app> which can be downloaded free of cost.
- 2.3.5 Bidders may download and refer the "Instructions for Online Bid Submission" from (<https://eprocure.gov.in/eprocure/app;jsessionid=2A56E178EED5C7D8536175EFBB573C9F.eprocgep2?page=HelpForContractors&service=page>).
- 2.3.6 The tender documents shall be submitted online in the prescribed format given on the websites and technical bids received online shall be opened as per NIT or Corrigendum thereof. No other mode of submission is acceptable. Detailed credentials as per the requirement of eligibility criteria and all tender papers except Bill of Quantities are to be submitted in "Technical Bid". Bill of Quantities with rates duly filled in are to be submitted in the format provided online in the name of "Financial Bid". Hence, physical submission of the documents is limited to submission of MSE registration certificate as per provision given in sub-clause 1.2.7 of NIT & 2.2.15 of Information to Bidders.
- Representative of the bidder, who chooses to attend, may attend the online opening of the technical bids on the scheduled date and time of Bid opening. However, such representatives shall be allowed to attend the opening of the Technical Bids, only, if such person presents the letter of authority issued in his name by the bidder on his letter head.
- 2.3.7 Bidders cannot submit the tender after the due date and time of e-bid submission. Time being displayed on Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app> ("Server System Clock Time") shall be final and binding on the bidder. e-Bids are required to be submitted by bidders, only as per the Indian Standard Time (IST) and not the time as per their location/country.
- 2.3.8 The bidders are advised to submit their e-bids well before the e-bid due date. IIT KHARAGPUR shall not be responsible for any delay in submission of e-bids for any reason including server and technical problems.
- 2.3.9 The Technical and Financial Bid shall be digitally signed by the Authorized Signatory of the bidder & submitted "on-line" only. The authorized signatory of the bidder must be in possession of Power of Attorney before submitting the digitally signed bid. Scanned copies of various documents can be prepared in .pdf file format.
- 2.3.10 Any tender received without original Earnest Money in the form as specified in clause 1.2.7 of tender documents shall not be considered and shall be summarily rejected.
- 2.3.11 IIT KHARAGPUR reserves the right to cancel the tenders before submission/opening of tenders, postpone the tender submission/opening date and to accept/reject any or all tenders without assigning any reasons thereof. IIT KHARAGPUR's assessment of suitability as per eligibility criteria shall be final and binding.
- 2.3.12 Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. The decision of IIT KHARAGPUR in this regard shall be final and binding.
- 2.3.13 The sealed EMDs shall be received at the Office of Superintending Engineer (Electrical),1st Floor, Old Building, IIT Kharagpur, Kharagpur WB 721302, up to 11.00 hrs, **20th May, 2026** or Corrigenda otherwise. EMD received after the due date and time shall not be considered. The EMDs shall be submitted in a sealed envelope super scribed "**Electrical Maintenance and Renovation Work in Wave Energy Laboratory of OENA Department IIT Kharagpur**" with NIT No. IIT/IW/EM/NIT/96/2025-26 as NIT No., clearly super scribed as "EMD "

2.4 EVALUATION OF BIDS AND AWARD OF WORK

- 2.4.1 The Bid of bidder will be opened on the specified date and time. Bids shall, first, be checked for payment of Earnest Money Deposit. Only those bids found to have duly paid/ submitted Earnest Money Deposit shall be considered for evaluation.
- 2.4.2 The Bid of bidder will be opened electronically on the specified date and time of opening at the Electrical Maintenance Section, 1st Floor, Old Building, IIT Kharagpur, Kharagpur WB 721302 in the presence of willing bidders or their authorized representatives.
- 2.4.3 Date, time and place of opening of Financial Bid will be informed after evaluation of Technical Bid to the Technically Qualified Bidders. –
- 2.4.4 **Evaluation of Technical Bid:** The bids received will then be assessed on the eligibility criteria mentioned at Para 1.3 of Notice Inviting Tender. Bids found not meeting the eligibility criteria shall be considered non-responsive and shall be rejected summarily.
- 2.4.5 IITKGP retains the right to revert back to individual bidders with further clarifications / queries on the Technical Bid. The bidder has to respond to the queries within the specified time mentioned in the covering letter.
- 2.4.6 On the date & time specified for opening of Financial Bid or the Revised Financial Bids as the case may be will be opened on specified date and time.
- 2.4.7 **EVALUATION OF Financial Bids:** The Financial Bid should contain the complete bid document with duly filled in Schedule of Financial Quote. Financial Bids opened as above will be checked for arithmetical errors.
- 2.4.8 **Letter of Acceptance:** The successful bidder shall be issued Letter of Acceptance (LOA) of the bid, and be required to furnish a Performance Guarantee as per General Conditions of Contract, Program Schedule with specific Milestones to be achieved as to complete the work within the stipulated time limit, details of his Technical Staff to be deployed as per
- 2.4.9 **ANNEXURE I**, and complaint handling arrangement for the Defect Liability Period.
- 2.4.10 **Letter of Award (Work Order)** shall be issued to the successful bidder only after receipt of the Performance Guarantee, along with Program Schedule, details of Technical Staffs to be deployed for the work and Complaint Redressal Mechanism **as per following para.**
- (a) Contractor shall submit Complaint redressal arrangement with name & contact number of the contractor's authorized representative for the purpose.
- 2.4.11 **Agreement (Contract)** consisting of complete tender document including conditions, bill of quantities, technical proposal and specialized services, drawings, if any, and acceptance thereof together with any correspondence leading thereto, shall be drawn and signed with the awardee **within 10 days** of the Letter of Award.
- 2.4.12 **Date of start of work** shall be reckoned from the **07th day** of the issue of the **Letter of Acceptance**.
- 2.4.13 **Defect Liability Period (DLP):** In partial modification to clause no.16 of General Conditions of Contract (GCC), the Defect Liability Period shall be **12 months** after the certificate final or otherwise of its completion of work or till the final bill has been prepared.
- ## 2.5 COMPLAINT REDRESSAL MECHANISM
- 2.5.1 All maintenance complaints shall be got addressed by the contractor to the satisfaction of Engineer-in-charge within 3 days from the date of issuance of the "Job Card" from IIT Kharagpur.
- 2.5.2 Complaints requiring completion time more than 3 days shall be responded specifically by the contractor with the scheme, in consultation with Engineer-in-charge, and timeline for compliance, to the Engineer-in-charge within 3 days from the date of issuance of the "Job
- 2.5.3 Any complaint left unattended by the contractor beyond 3 days without specific reasons on record shall attract levy of penalty of Rs 50/- per complaint per day from 4th day to 7th day and Rs 100/- per complaint per day thereafter recoverable from dues to the contractor.
- 2.5.4 **Payment Terms:** 90% payment shall be made after receipt of stores in good order and condition, successful installation and demonstration thereafter certification by the Department. Balance 10% may be released against submission of Account Payee Demand Draft, Fixed Deposit Receipt or BG from any commercial bank to the tune of 10% of the total Contract value or on completion of the warranty period. PBG may be issued from any commercial bank, which shall be valid for the duration of warranty period /DLP plus 60 days. No advance/mobilization support, is payable against supply of stores.
- 2.5.5 **Performance Security:** The bidders have to submit BG/ Account Payee Demand Draft/ Fixed Deposit Receipt from any Nationalized Bank to the tune of the amount equivalent to 3 % of the cost of contract value. The Account Payee Demand Draft/ Fixed Deposit Receipt/BG is required for the entire period of the Warranty period and it must remain valid for a period 60 (sixty) days beyond the expiry of the Warranty Period.
- 2.5.6 **Liquidated Damages:** In the event of failure to deliver the stores within the specified time, LD a sum equivalent to 0.5 (half) per cent of the delivered price (including elements of GST, freight and variations) of the delayed Goods and/or

incidental Works / Services for each week of delay or part thereof until actual delivery or performance, subject to a maximum deduction of the 5% of the total contract value. In case of inordinate delay this maximum deduction shall be 10% of the total contract value. Inordinate delays: Inexcusable delays of more than one-fourth (25%) of the total completion period shall be treated as inordinate delays.

- 2.5.7 **Warranty/Guarantee & On-site skill support:** 01 years (DLP period) onsite comprehensive OEM Warranty / Onsite Warranty (whichever is applicable/justifiable) from the date of successful installation and commissioning.
- 2.5.8 **Training:** The Supplier is required to provide training at free of cost to the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
- 2.5.9 The Institute does not bind itself to offer any explanation to those bidders whose technical bids have not been found acceptable by the Technical Evaluation Committee of the Institute.

IMPORTANT NOTE

- I. The Institute may accept or reject any or all bids, either fully or partially in line with GFR 2017, the Manual for Procurement of Goods, the Manual for Procurement of Consultancy & Other Services, the Institute Procurement Guidelines, and applicable Government Orders and their amendments from time to time, and with the due approval of the Competent Authority. Also, the Institute is not bound to accept the lowest bid and may also change the quantity, upgrade the criteria, or drop any item or part thereof at any stage, if the situation so demands, before issuing the Purchase Order.
- II. A bid submitted with false information will not only be rejected but also the OEM/ vendor will be debarred from participation in future tendering process.
- III. In case of any dispute, the reasoned and justified decision of the Competent Authority of this Institute shall be final and binding on the bidders.
- IV. In the event of any dispute between the management and the Contractor relating to those Contracts where Integrity Pact is applicable, in case both the parties are agreeable, they may try to settle dispute through mediation before the panel of IEMs in a time bound manners (para 5.6 of circular no. 04/06/23 of CVC).
- V. In case the due date for opening tender happens to be a holiday, the same will be opened on the next working day. The timings will however remain unchanged. Please Note that the Institute remains closed on Saturday, Sunday and Institute holiday.
- VI. The Bidders are requested to submit the bids after issue of clarifications only considering the changes made if any. Bidders are totally responsible for incorporating/complying the changes/amendments issued if any, in their bid.
- VII. **Acknowledgment:** It is hereby acknowledged that we have gone through all the points listed under "Instructions & Special Conditions" outlined above, and those in the accompanying note on "Important Conditions", and we agree to abide by them under the penalty of permanent disqualification for Tender participation and for related penal actions for non-abidance of the conditions.
- VIII. **Integrity Pact:** The bidder shall have to sign the Integrity Pact with the Institute as per Institute norms in case the Lowest Quoted Price is equivalent to or exceeds the threshold value of Rs. 01 Crore.

Signature of contractor

1. UNDERTAKING BY THE BIDDER**UNDERTAKING**

I / We have read and examined the Tender document including terms & conditions, specifications, bill of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I / We, hereby tender for execution of the work specified for the Indian Institute of Technology Kharagpur within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing.

We agree to keep the tender open for 120 days from the last date of its submission and not to make any modifications in its terms and conditions. A sum of Rs. _____ has been deposited in cash / demand draft of a scheduled bank / Pay order as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, Indian Institute of Technology Kharagpur or his authorized officer shall 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 the Director, Indian Institute of Technology Kharagpur 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.

Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

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 & Signature of Contractor

Postal Address

Dated

Witness

Address

Occupation

TECHNICAL STAFF OF CONTRACTOR

2.5.8 Name of the Work: Electrical Maintenance and Renovation Work in Wave Energy Laboratory Of OENA Department IIT Kharagpur.

DISCIPLINE	NAME	QUALIFICATION	EXPERIENCE	CONTACT NUMBER
Overall Project In-charge				
Engineer - Structure and Civil Works				
Engineer – Electrical & Mechanical Works				
In-charge - Safety, Health & Environment				
In-charge for Maintenance (DLP) period				

Seal & Signature of Contractor



**UNDERTAKING FOR GCC COMPLIANCE****UNDERTAKING**

We hereby undertake that we shall fulfill all the terms & conditions within the specified time frame, after the acceptance of our offer in case our offer is accepted; failing which IIT KHARAGPUR may go ahead to take necessary action such as reporting the non-compliance to appropriate Government authorities and barring us from future participation in IIT KHARAGPUR works.

Seal & Signature of Contractor

DATED:

Bid Security Declaration Form

Date: _____ Tender No. _____ To (Insert complete name and address of the purchaser)

I/We, The undersigned, declare that :

I/We understand that, according to your conditions, bids must be supported by a Bid Security Declaration.

I/We, accept that I/we may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am/We are in a breach of any obligation under the bid conditions, because I/We

- a) Have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instruction to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/We are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/ our Bid.

Signed: (insert signature of person whose name and capacity are shown)

In the capacity of (insert legal capacity of person signing the bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated onday of (Insert date of signing)

Corporate seal (where applicable)

ANNEXURE - IV

DETAILS OF THE FIRM

1.	Name of Firm	
2.	Registered / Postal Address	
3.	Working Office Address	
4.	Local Service Center Address details (documentary proof must be attached with Technical Bidding documents)	
5.	Working Email id	
6.	Mobile No.	
7.	Telephone No.	
8.	Particulars of Registration with various government bodies/organization.	
9.	Were you ever debarred/ blacklisted by any department during the past seven years?	
10.	Name of Directors /Partners with Address	
11.	Permanent Account Number (PAN) No	
12.	GST Registration No.	

Signature of contractor



DECLARATION OF LOCAL CONTENT

(To be given on Company Letter Head – For tender value upto Rs.10 Crores)

(To be given by Statutory Auditor/Cost Auditor/ Practicing Cost Accountant/ Practicing Chartered Accountant for tender value in excess of Rs.10 Crores)

Tender No:.....

Dated:

To

The Chairman

Departmental Purchase Committee

Department of

IIT Kharagpur

PIN: 721302

Subject: Declaration of Local Content-reg.

1. Country of origin of Goods being offered:.....

2. We hereby declare that items offered has% local content.

(Clarification for Local content calculation as per OM No: P-45021/102/2019-BE-II-Part (1) (E-50310), dated 4th March 2021 of Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India.)

3. The details of the location(s) at which local value addition is made are given in the below table;

Sl. No.	Name of the Item	Location(s) of Local Value addition

“Local Content” means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

Important:

“False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules 2017 for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules 2017 along with such other actions as may be permissible under law.”

Date:

Yours faithfully,

(Signature of the bidder, with Official Seal)

UNDERTAKING REGARDING BLACKLISTING / NON – DEBARMENT
(On Company / firm's Letterhead)

I/We hereby confirm and declare that we, M/s -----, is not blacklisted/ Deregistered/ debarred by any Government department/ Public Sector Undertaking/ Private Sector/ or any other agency for which we have Executed/ Undertaken the works/ Services as on date.

“Submission of Forged document or False declaration in any stage of contract will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules 2017 for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules 2017 along with such other actions as may be permissible under law.”

Signature of the Authorized Person

Date: -----

Full Name: -----

Place: -----

Company Seal: -----

INTEGRITY PACT

To,
Superintending Engineer,

Sub: Submission of Tender for the work of. Dear Sir, I/We acknowledge that IIT KGP is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process.

I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT. I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by IIT KGP.

I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, IIT KGP shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/ bid. Yours faithfully (Duly authorized signatory of the Bidder)

To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IIT KGP.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of 20..... BETWEEN Director of IIT KGP represented through Superintending Engineer, Electrical and Maintenance Section IIT KGP, (Hereinafter referred as the (Address of Division) 'Principal/Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND (Name and Address of the Individual/firm/Company) through (Hereinafter referred to as the (Details of duly authorized signatory) "Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns) Preamble WHEREAS the Principal / Owner has floated the Tender (NIT No (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for (Name of work) hereinafter referred to as the "Contract". AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s). AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties. NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- (1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- (2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

1. It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
2. The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - (a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - (b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the

Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

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

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

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

Article 3: Consequences of Breach

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

1. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.

3. Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

3. If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

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

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.

2. The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

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

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, IIT KGP.

Article 7- Other Provisions

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

Article 8- Legal and Prior Rights

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

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

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

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

WITNESSES: 1

(signature, name and address)

2

(signature, name and address) Place: Dated :



Profit and Loss Summary statement of Last 5 Financial years

Approved through Chartered Accountants

TO WHOM IT MAY CONCERN

This is to certify that the total turnover and Profit/Loss summary of
M/s..... having its registered office
at for last five Financial years
are as given below: -

Description	Financial years				
Annual Turnover from Operations					
Profit (+)/Loss After Tax					

The above is true to the best of our knowledge and belief.

(TO BE VERIFIED BY Chartered Accountants with UDIN No)

DECLARATION

1. I, -----Son /Daughter of Shri -----
-----Proprietor/Partner/CEO/MD/Director/Authorized
Signatory of M/s.-----am competent to sign this
declaration and execute this tender document.
2. Tender ref no: _____ dt:_____. I have carefully read and
understood all the terms and conditions of the tender and hereby convey my acceptance of
the same.
3. The information/ documents furnished along with the above application are true
and authentic to the best of my knowledge and belief.
4. I/we am/are well aware of the fact that furnishing of any false information/
fabricated document would lead to rejection of my tender at any stage besides liabilities
towards prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is
authenticated, sealed and signed, and I take full responsibility for the entire documents
submitted.

Signature of the Authorized Person

Date: -----

Full Name: -----

Place: -----

Company Seal: -----

1. Checklist for Documents to be uploaded on <https://eprocure.gov.in/eprocure/app>

Sl. No.	Documents	Reference
1.	Tender Documents (sign. With stamp on each page)	
2.	EMD/BG scan copy (has to be submitted physically at the office of SE (E&M) on or before the due date/extended date of submission of bid.)	1.2.5
3.	Company registered by Govt. Organisation like CPWD/PWD/MES/Autonomous bodies or Other PSUs	1.3.3
4.	GST Registration Certificate	1.3.3
5.	Permanent Account Number	1.3.3
6.	Completion Certificate during last 07yrs	1.3.2
7.	Updated Electrical Contractor License and Supervisory Competency Certificate.	
8.	ANNEXUREs with Local Service Center Address details (documentary proof must be attached with Technical Bidding documents)	
9.	The Average annual turnover of the bidder as per ITCC or profit loss statement, during last 5 years ending 31 Mar 2025.	
10.	BOQ under financial bid section	

** Please upload necessary documents only.

Signature of contractor

Schedule of Quantities (SOQ)

Name of work: Electrical Maintenance and Renovation Work in Wave Energy Laboratory Of OENA Department IIT Kharagpur.

Sl. No.	Description of Items	Unit	Qty.	Rate with GST (Rs)	Amount with GST (Rs)
1	Wiring for light point / ceiling fan point / wall fan point including 6 amp 3 pin socket/call bell point / exhaust fan point with 1.5 sq mm FRLS /HFFR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit,with modular switch, modular plate, suitable size GI box and earthing the point with 1.5 sq mm,1.1 kV, FRLS/HFFR PVC insulated copper conductor single core cable etc as required.				
a)	Upto 6 metres (Group A)	Point	24	1189	28536
b)	Above 6 metres (Group B)	Point	20	1362	27240
c)	Above 9 metres (Group C)	Point	27	1704	46008
2	Wiring for circuit / submain wiring alongwith earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor , single core cable in surface / recessed medium class PVC conduit as required .				
a)	2 X 1.5 sq mm + 1 X 1.5 sq mm for earth wire	Meter	300	267	80100
b)	2 X 2.5 sq mm + 1 X 2.5 sq mm for earth wire	Meter	300	311	93300
c)	2 X 4 sq mm + 1 X 4 sq mm for earth wire	Meter	800	373	298400
d)	2 X 6 sq mm + 1 X 6 sq mm for earth wire	Meter	100	482	48200
f)	2 X 16 sq mm + 1 X 6 sq mm for earth wire	Meter	50	832	41600
h)	4 X 6 sq mm + 2 X 6 sq mm for earth wire	Meter	50	813	40650
j)	4 X 16 sq mm + 2 X 6 sq mm for earth wire	Meter	100	1454	145400
3	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required.				
a)	20 mm	Meter	10	151	1510
b)	25 mm	Meter	10	168	1680
c)	32 mm	Meter	5	209	1045
4	Supplying and fixing metal box/ Junction box of following sizes on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as require(ISI Approved).				
a)	75 mm X 75 mm X 60 mm deep	Each	5	213	1065
b)	100 mm X 100 mm X 60 mm deep	Each	5	245	1225
c)	150 mm X 150 mm X 60 mm deep	Each	5	360	1800
5	Supplying and fixing following sizes/modules, GI / PVC box along with modular base & cover plate for modular switches in recess etc as required.				
a)	1 or 2 Module (75 mm X 75 mm)	Each	2	354	708
b)	3 Module (100 mm X 75 mm)	Each	2	384	768
d)	6 Module (200 mm X 77 mm)	Each	20	462	9240
f)	12 Module (200 mm X 150 mm)	Each	30	614	18420
6	Supplying and fixing following modular switch / socket on the existing modular plate & switch box including connections but excluding modular plate etc as required.				
a)	5 /6 Amps Switch	Each	150	121	18150
b)	15 /16 Amps Switch	Each	150	176	26400
c)	3 pin 5 /6 Amps Socket Outlet	Each	150	136	20400
d)	6 pin 15 / 16 Amps Socket Outlet	Each	150	219	32850
7	Blanking Plate :-				

a)	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	10	47	470
b)	Supplying and fixing single Pole blanking plate in the existing MCB DB complete etc. as required.	Each	30	14	420
8	Supplying & fixing suitable size GI box/ PVC box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required with earthing attachment (Complete unit) for Split/Window Air conditioner.	Each	6	807	4842
9	Installation, Testing, Commissioning of wall bracket/ceiling fittings of all sizes and shapes containing upto two GLS/CFL/LED lamps per fitting , complete with all accessories including connections etc. including 3 X1.5 sq mm FRLS/ HFFR PVC insulated copper conductor single core cable and earthing etc as required.	Each	24	151	3624
10	Supplying and fixing of extra conduit down rod of 20 cm Length (heavy gauge) GI pipe 15 mm dia wiring with 3 X 1.5 sq mm single core FRLS/ HFFR PVC cu cable including cutting, threading and painting etc as required.(Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored.)	Each	50	59	2950
11	Hot Dipped Galvanized Iron Cable Tray :- Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections , joined with connectors, suspended from the ceiling with two numbers GI Suspenders/ fixing on wall with suitable G.I. angle i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
a)	100 mm width X 50 mm depth X 1.6 mm thickness	Meter	20	754	15080
b)	150 mm width X 50 mm depth X 1.6 mm thickness	Meter	80	803	64240
12	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections , joined with connectors, suspended from the ceiling with two numbers GI Suspenders/ fixing on wall with suitable G.I. angle i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
a)	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1	1252	1252
b)	101 mm width X 50 mm depth X 1.6 mm thickness	Each	4	1368	5472
13	Supplying and installing following size of Perforated Hot Dipped Galvanised Iron cable tray "Tee" (Galvanisation thickness not less than 50 microns) perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers G.I. suspenders/ fixing on wall with suitable G.I. angle i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
a)	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1	1427	1427
b)	101 mm width X 50 mm depth X 1.6 mm thickness	Each	4	1486	5944
14	Supplying and fixing double door 12 Way Vertical TPN MCB Distribution board for MCCB incomer upto 250 A with IP-42/43 protection, concealed /surface in wall after cutting the wall/on angle iron frame on wall & mending good the damages to original finish incl. Inter connection with suitable size of copper wire and neutral link & provision for earthing attachment.	Each	1	18883	18883
15	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each	2	1271	2542
16	Providing and fixing following rating and breaking capacity and pole MCCB with adjustable thermal and fixed magnetic setting and terminal spreaders link in existing PCC Panel /MCCB DB/MCCB SS Enclosure including drilling holes in cubicle panel, making connections, etc. as required.				
	250 A,36 KA, FP MCCB	Each	1	18372	18372

17	Supply of one number Aluminium conductor PVC insulated and PVC sheathed / XLPE, Armoured Power Cable A2XFY of 1.1 kV grade,, Confirming to IS: 1554/7098 (Part -1) 1988 with latest amendments.				
a)	2X 10 sq mm	Meter	80	189	15120
b)	3.5X 25 sq mm	Meter	120	350	42000
c)	3.5X150 sq mm	Meter	100	1439	143900
18	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 incl. S+F of 1 X 10 SWG rust free GI wire for E.C.C making holes and mending good the damages to original finish incl painting.(Cable Dept supply)				
a)	Upto 35 sq mm (clamped with 1 mm thick rust free saddle)	Meter	50	64	3200
b)	Above 35 sq mm and upto 95 sq mm (clamped with 25 X 3 mm rust free MS flat clamp)	Meter	30	151	4530
c)	Above 95 sq mm and upto 185 sq mm (clamped with 25/40 X 3 mm rust free MS flat clamp)	Meter	20	180	3600
19	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on Cable Tray along with S+F of 10 SWG GI wire as earth wire as required.				
a)	Upto 35 sq. mm (clamped with 1mm thick rust free saddle @ 3 sets per metre.)	Meter	100	53	5300
b)	Above 35 sq. mm and upto 95 sq. mm (clamped with 25 X 3mm rust free MS flat clamp @ 3 sets per metre.)	Meter	20	109	2180
c)	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40 X 3mm rust free MS flat clamp @ 3 sets per metre.)	Meter	50	138	6900
20	Laying of cable as below after Cutting Floor/Pavement/Wall and making holes incl embedding the cable at an average depth as below and mending good the damages to original finish incl S+F of 1 X 10 SWG wire for ECC (Cable Dept Supply)				
a)	From 2.5 sq mm to 35 sq mm at an average depth of 75 mm in floor/ pavement/wall etc.	Meter	10	127	1270
b)	Above 35 sq mm to 95 sq mm at an average depth of 100 mm in floor/ pavement/wall etc.	Meter	10	159	1590
21	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size Direct in Ground including excavation, sand cushioning, protective covering @ 8 bricks per metre on each cable and refilling the trench etc. as required.				
a)	Upto 35 sq. mm	Meter	5	453	2265
b)	Above 35 sq. mm and upto 95 sq. mm	Meter	5	475	2375
c)	Above 95 sq. mm and upto 185 sq. mm	Meter	40	497	19880
22	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size in the existing Masonry Open Duct incl mending good the damages to original finish. (Cable Dept Supply). This includes S+F 10 SWG GI earth wire for cables.				
a)	Upto 35 sq mm .	Meter	10	47	470
b)	Above 35 sq. mm and upto 95 sq. mm	Meter	10	72	720
c)	Above 95 sq. mm and upto 185 sq. mm	Meter	10	72	720
23	Supplying and making End Termination with brass compression gland and lugs for following size of PVC insulated and PVC sheathed/XLPE aluminium conductor cable of 1.1 kV grade as required.				
a)	2 X 10 sq mm (19 mm)	Each	4	295	1180
b)	2 X 16 sq mm (22 mm)	Each	1	311	311
c)	4 X 16 sq mm (28 mm)	Each	1	366	366
d)	3.5 X 25 sq mm (28 mm)	Each	8	371	2968
e)	3.5 X 35 sq mm (32 mm)	Each	1	437	437
f)	3.5 X 95 sq mm (45 mm)	Each	2	684	1368
g)	3.5 X 150 sq mm (50 mm)	Each	2	798	1596

24	Supply and Fixing medium gauge Gi pipe (ISI-Medium) protection for cable entry including bending the pipe to the required shape complete as required with laying of wire/cable through pipe.				
a)	25 mm	Meter	1	173	173
b)	40 mm	Meter	1	246	246
25	Supplying and Fixing DP/ FP Sheet Steel Enclosure on surface/recess complete with connection, testing and commissioning etc.as required without MCB/MCCB.				
a)	Two Pole Enclosure for MCB	Each	2	270	540
b)	Four Pole Enclosure for MCB	Each	2	316	632
c)	Four Pole Enclosure for MCCB	Each	1	584	584
26	Supplying and fixing 32 Amps,415 Volt TPN Industrial type socket outlet, with 4 pole and earth (3P+N+E) ,metal enclosed plug top along with 32 Amps,"C" curve, TPN, 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	2	5196	10392
27	Supplying and fixing 63 Amps,415 Volt TPN Industrial type socket outlet, with 4 pole and earth (3P+N+E) ,metal enclosed plug top along with 63 Amps,"C" curve, TPN,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	1	11236	11236
28	Supplying and fixing following way, Single Pole and Neutral, IP- 43, sheet steel, MCB distribution board , 240 V /415 V on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator).				
a)	6 Way , Double door	Each	1	2390	2390
c)	12 Way Double door	Each	1	2871	2871
29	Supplying and fixing of following ways surface/ recess mounting, Horizontal type, IP-43,415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 Amps, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required.				
	6 Way (4 + 18), Double door	Each	1	5299	5299
30	Supplying and fixing of following ways surface/ recess mounting, Vertical Type,IP-43, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 Amps, 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 TP DB is normally used where 3 phase outlets are required.)				
	8 Way (4 + 24), Double door	Each	2	10724	21448
31	Supplying and fixing double door 12 Way Vertical TPN MCB Distribution board for MCCB incomer upto 250 A with IP-42/43 protection , concealed /surface in wall after cutting the wall/on angle iron frame on wall & mending good the damages to original finish incl. Inter connection with suitable size of copper wire and neutral link & provision for earthing attachment.	Each	1	18883	18883
32	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each	1	1271	1271
33	Providing and fixing following rating and breaking capacity and pole MCCB with adjustable thermal and fixed magnetic setting, Ics = 100% Icu and Operational Voltage 690 V and 02 sets of terminal spreaders link in existing PCC Panel /MCCB DB/MCCB SS Enclosure including drilling holes in cubicle panel, making connections, etc. as required.				
	250 Amps,36KA Four Pole	Each	1	18372	18372
34	Supplying and fixing 5 Amps to 32 Amps rating, 240/415 V,10 kA,"C" curve, Miniature circuit breaker suitable for inductive load of following				

INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

	poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a)	Single Pole	Each	96	285	27360
b)	Double Pole	Each	5	696	3480
c)	Triple Pole	Each	5	1070	5350
d)	Triple Pole and Neutral	Each	5	1301	6505
35	Supplying and fixing 40 Amps to 63Amps rating, 240/415 V,10 kA,"C"curve, Miniature Circuit breaker suitable for inductive load of following poles in the existing MCB DB or in enclosure complete with connections, testing and commissioning etc. as required.				
a)	Single Pole	Each	10	422	4220
b)	Double Pole	Each	5	938	4690
c)	Triple Pole	Each	5	1432	7160
d)	Four Pole	Each	5	1830	9150
36	Lightning Conductor :-				
a)	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, GI tube, having single prong at top, with 85 mm dia 6 mm thick GI base plate including holes etc, complete as required	Each	7	609	4263
b)	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required. (Jointing shall be done by Welding with 4 inch. overlapping over the tape and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm).	Each	20	130	2600
37	Providing and fixing GI tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (For horizontal run). (Jointing shall be done by Welding with 4 inch. overlapping over the tape and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm).	Meter	160	148	23680
38	Providing and fixing GI tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (For Vertical run). (Jointing shall be done by Welding with 4 inch. overlapping over the tape and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm).	Meter	80	238	19040
39	Providing and fixing testing joint, made of 20 mm X 3 mm thick GI strip,125 mm long, with 4 nos rust free GI bolts, nuts, check nuts and spring washers etc, complete as required .	Each	4	140	560
40	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories , and providing masonry enclosure of size not less than 30 cmX 30 cmX 30 cm with cast iron /MS frame with MS cover plate, 6 mm thick having locking arrangements shall be suitably embedded in the masonry enclosure and 20 mm dia Medium class GI watering pipe of 2.7 meter long etc. attached to the electrodes and a funnel with mesh on the top of this pipe for watering the earth shall be provided with charcoal/coke and salt etc. as required.	Set	4	8351	33404
41	Supplying and fixing 25X5 mm G.I strip in 40 mm dia G.I. pipe from earth electrode , including connection/terminating with G.I. nut, bolt, spring, washer and excavation with re-filling etc as required (Jointing shall be done by Welding with 4 inch. Overlapping over the tape and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm)	Meter	13	755	9815
42	Supplying and laying 25X5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with nut, bolt, spring, washer etc as required.(Jointing shall be done by Welding with 4 inch. overlapping over the tape and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm).	Meter	20	160	3200
43	Supplying and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Meter	50	84	4200

44	Providing and fixing 25X5 mm G.I strip on Surface or in recess with fixing clamp for connections etc. as required.(Jointing shall be done by Welding with 4 inch. Overlapping over the Strip and anti corrosive paint on the joint / by Overlapping and with 02 sets of G.I. nut, bolt & spring washer spaced at 50 mm)	Meter	80	287	22960
45	Supplying & fixing earth bus of 50 mm x 5 mm copper strip on surface of wall having clearance of 6 mm from wall including providing drilled holes on the busbar complete with brass bolts, nuts, washers, spacing insulators etc. as required.	Meter	0.3	2245	673.5
46	Filling available excavated earth (excluding rock) in trenches, sides for earthing/ foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, within lead up to 50 metres including the cost of carried earth.	CuM	20	323	6460
47	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a)	2 X 16 sq. mm	Each	1	2374	2374
b)	3½ X 25 sq. mm / 3½ X 35 sq. mm / 3½ X 50 sq. mm	Each	2	2698	5396
c)	3½ X 70 sq. mm	Each	1	3623	3623
d)	3½ X 95 sq. mm	Each	1	3819	3819
48	Supply, Installation, Testing and Commissioning of Ceiling fan with Brush Less Direct Current (BLDC) Motor with copper winding , Class of insulation: B, 3 nos. metal (Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, Steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374 -2019), THD (Total Harmonic Distortion) less than 10%, Suitable for operation with electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, Ceiling Fan Complaint to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required.				
	1200 mm sweep, Service Value (CM/Min/Watt) minimum 6.00, Air delivery 210 CM/Min(Minimum).	Each	6	2882	17292
49	Providing and fixing M.S. fan clamp/ Highbay Light fixing clamp of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs during laying or Existing Beams of angle iron Structure, including painting the exposed portion of loop, all as per standard design complete.	Each	27	125	3375

50	<p>LED High bay/Medium bay light (System lumen efficacy ≥ 150 to < 160 lm/Watt) :- Supplying, Installation, Testing & Commissioning ofof Ceiling (Surface/Suspended) mounted Vertical Round type High bay/ Medium bay Industrial PDC housing Body LED luminaire with Polycarbonate Cover including electronic driver (Replaceable) as per the requirement with Driver efficiency $> 85\%$, Operating voltage AC 140 - 270 Volt, frequency 50/60 hz, Operating temp range -5°C to 40°C, internal surge protection of 2.5 KV with Short & Open circuit protection & all accessories of the following Specification :- CCT $\geq 5700\text{K}$, Lumen ≥ 10000, CRI ≥ 70, P.f ≥ 0.95, Efficacy(Lumen/watt) ≥ 150, THD $< 10\%$, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) < 3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥ 150 < 160 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be mitted. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Equivalent to Philips Item Model - BY515P LED100S 5700 WB PSU GR.</p>	Each	27	6756	182412
51	<p>LED Batten light (System lumen efficacy ≥ 105 to < 120 lm/Watt) :- Supplying, Installation, Testing & Commissioning of LED surface mounted Batten light of Powder Coated CRCA Sheet Body (Thickness ≥ 0.50 mm) material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency $> 85\%$, Operating voltage AC 140 - 270 Volt, frequency 50/60 hz, Operating temp range -5°C to 40°C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD $< 10\%$, P.F. ≥ 0.95, IP20, CRI > 80, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) < 3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥ 105 < 120 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be mitted. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness $> = 1.20$ mm)</p>				
a)	18 - 22 watt	Each	2	681	1362
b)	24 - 26 watt	Each	24	692	16608

52	<p>LED Street light fixture, powder coated pressure die cast aluminium body (System lumen efficacy ≥ 120 < 135 lm/Watt) :- Supplying, installation, Testing & Commissioning of Street light LED fixture powder coated pressure die cast aluminium body with driver as per the requirement with Driver efficiency $> 85\%$, Input voltage: 140-270 Volt AC, frequency 50/60 hz, Operating temp range -5 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, Driver efficiency $> 85\%$, THD $< 10\%$ as per IEC 61000-3-2, P. F. ≥ 0.95, IP-6, IK-10, CRI > 70, under voltage and over voltage protection, EMIEMC As per CISPR 15, lenses for beam angle as per IESNA type I/II/III as per the width of the road and the project requirement., suitable to fit in up to 65mm dia pipe, life time (LED, Driver & electrical circuitry) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 5700$^{\circ}\text{K}$ /6500$^{\circ}\text{K}$ (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) < 5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥ 120 < 135 lm/Watt output. LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).</p>				
	36 watt	Each	6	1629	9774
53	<p>Heavy duty Industrial applications Exhaust Fan :- Supply, Installation, Testing and Commissioning of Industrial applications 450 mm Sweep, 220 - 240 volt, a.c., 50 HZ, Single phase, metal blades with double ball bearing, powerful capacitor type durable motor, rubber mountings with metal rigid frame Heavy duty Exhaust Fan complete with all accessories of the following specification:- Power Input $= / < 350$ Watts, Speed $= / < 1500$ RPM, Air Delivery $= / > 6000$ CMH, Noise label $= / < 70$ db and mounting with grouted frame/clamp arrangements with necessary accessories including Supply & fixing of metal louver of suitable size.</p>	Each	6	7560	45360
54	<p>Making Exhaust Fan hole in wall and making good the damages and smooth cement finish etc. as practicable as possible and providing necessary length of PVC insulated wire and making connection for exhaust fan of following diameter</p>				
	Upto 60 Cm (24")	Each	6	658	3948
55	<p>Supply, Installation, Testing and Commissioning of 220 - 240 volt a.c., 50 HZ, single phase Input Voltage, 400 mm Sweep Wall Mounted Fan complete with Pull-Cord mechanism for speed control & oscillation including all accessories of the following Specification :- White in colour, Power consumption $< / = 60$ Watt, Speed $< / = 1350$ RPM, Air delivery $> / = 80$ CMM and connection with 3X1.5 sq mm FRLS PVC insulated copper conductor single core cable and earthing etc as required.</p>	Each	2	3212	6424
56	<p>Supply, Installation, Testing and Commissioning of 250 mm Sweep, 220 - 240 volt, a.c., 50 HZ, Single phase, Plastic Ventilating Fan complete with dust protection shutter & all accessories of the following specification :- Power Input $= / < 40$ Watts, Speed $= / < 1300$ RPM, Air Delivery $= / > 750$ CMH and mounting with grouted frame/ clamp arrangements with necessary accessories & Connection with mending good to the damages.</p>	Each	2	2348	4696
57	<p>Dismantling of following items with good condition and shifting to site store etc. including mending good the damages to original finish etc. as required as per instructions by the EIC.</p>				
a)	Light Fittings/ Ceiling Fan/ Wall Fan/ Exhaust Fan/ Modular Power Board with switch & socket etc. including accessories, old wiring & cable.	Each	35	30	1050
b)	SPN DB/ Main switch/ Industrial plug & socket DB/ Metal Enclosure etc. including accessories, old cable & wiring.	Each	4	147	588
c)	VTPN MCCB DB/ TPN MCB DB/ Small Size Power Supply Panel etc. including accessories, old cable & wiring.	Each	4	366	1464

d)	Medium Size Power Supply Panel etc. including accessories, old cable & wiring.	Each	1	732	732
58	Portable Fire Extinguishers :-				
a)	Supplying, installation, testing & commissioning ISI marked ABC Powder Stored pressure type fire extinguisher containing MAP - 50% Dry powder with 4A:144B Fire Rating conforming to IS 15683:2018, Capacity : 6 KG etc. complete as required including necessary Test Certificate & Warranty Certificate.	Each	1	4092	4092
b)	Supplying, installation, testing & commissioning ISI marked Carbon Dioxide(CO₂) Portable type fire extinguisher with 55B Fire Rating conforming to IS : 15683:2018 , Capacity : 4.5 Kg etc. complete as required including necessary Test Certificate & Warranty Certificate.	Each	1	8072	8072
				Total Amount	2010028

****Please submit Percentage E-BOQ under financial bid section in the <https://eprocure.gov.in/eprocure/app> Portal for E-Tendering.**

Special instruction related with BOQ

Special Note :- The following guidelines should be maintained strictly for the execution of above mentioned work to avoid any difficulties for final Bill.

- (1) All materials to be used needs prior approval of Engineer in charge.
- (2) Working /Construction drawing is to be submitted for approval before execution of work.
- (3) Valid Challan and Test/Guarantee certificates of all supplied materials by the contractor are to be submitted.
- (4) No twisted joints are allowed for making connection of the Neutral & Earth wire in the Switch Boards, Suitable connectors should be used. No joints in wires are acceptable.
- (5) Suitable Copper/Aluminium lugs are to be used during any wire connection. Also GI anti rust screws are to be used dering fixing of Pipes, Cables, Conduits, light fittings etc on the wall.
- (6) Ceiling rose should use for the connection of all luminous/ Fans etc.
- (7) Conduit pipes termination at Switch Board/ Power Board will be with suitable check -nuts/ conduit gland in case of surface wiring.
- (8) As build drawing with circuit identification & measurement to be submitted after completion of work.
- (9) All eletrical work includes dismantling of old items in respective area and depositing them to the store as per rules.
- (10) Power Cable and Casing will be painted with the matching wall paint in case of surface wiring.
- (11) For LED fittings(including driver and luminains). - Engraved/Embssed manufactures Name and brand shall be available on the body of the Luminaire. Minimum 05 years warranty at Kharagpur site must be given from the date of installation at free of cost. Also LM 79 Certificate by any National or International accredited Laboratory is mandatory.
- (12) For BLDC Motor Ceiling Fan - Minimum 03 years warranty at Kharagpur site must be given from the date of installation at free of cost.
- (13) For Wall Fan /Exhaust Fan - Minimum 02 years warranty at Kharagpur site must be given from the date of installation at free of cost.
- (14) All MCCB units should have spreader links for terminations and Ics = 100% Icu feature.
- (15) Numbering of each LED fittings, Ceiling Fans, Wall Fans along with supplier name & installation date by permanent marker shall be available on the body for identification of the supplier .

Preferred Makes of Materials :-

- (1) PVC Insulated FRLS Copper Wire,1.1 kV grade, ISI Marked :- Finolex/ Polycab/ Havells/ KEI/ Fort Gloster
- (2) 3 Pole Ceiling Rose/ Holder :- Anchor/ SSK/Polycab.
- (3) Modular Switch/ Socket/ Blank plate :- Crabtree Athena/ Wipro Nowa/ Legrand Myrious / MK Wraparound Plus/ Hager-Insysta.
- (4) MMS PVC Pipe/Casing :- Anchor/ Precision/ Polycab.
- (5) MCB DB (1.6mm thick)/ MCB/ MCCB/Isolator/ Contractors/AC Controller :- Legrand/ Hager/ LK/ Siemens/ ABB. MCB/MCCB shall be same make of MCB DB/MCCB DB. All MCCB unit should have Four Pole and Ics = 100% Icu feature.
- (6) Hot Dipped G.I. Cable Tray :- Legrand/ OBO/ MK - Honey Well/ Profab.



(7) Cable Lugs/Glands/ Jointing Kit :- Dowells/ Comet/ 3M/ Raychem/ Denson
(8) XLPE, Armoured Power Cable A2XFY(1.1 kV grade) :- Havells /Finolex /Polycab /Fort Gloster/KEI.
(9) LED Luminaire :- Philips Signify/ Havells/ Lighting Technology/ Jaquar/ Crompton/ Bajaj.
(10) Exhaust Fan/Wall Fan:- Havells/ Orient/ Crompton/ Usha.
(11) Sandwich Bus Duct/ Rising Mains/ Tap off Boxes/ End Feed Unit :- Legrand/ L&T/ Schneider/ ABB/ C&S.
(12) Air Circuit Breaker Should be EDO type, Microprocessor Based, LSIG Protection with Ics = Icu = Icw = 100% for 1 Sec feature :- Legrand(DMX)/ LK(U Power)/ Schneider(MVS).
(13) GI Pipe(ISI Marked),Medium Gauge :- TATA/ Jindal/ Bansal.
(14) BLDC Ceiling Fan with Modular Regulator operated:- Atombarg/ Havells/ Orient/ Crompton/ Usha.
(15) Fire alarm steel wire armoured cable, 600/1000V rated XLPE insulation with copper conductor, ISI Marked :- Finolex/ KEI / Polycab/ Havells.
(16) Fire Alarm & smoke detection system(Panel/Sounder/Manual Call box & accessories):- Notifier(Honeywell)/Jonson Control/Cerberus(Simence)/ BOSCH
(17) Portable fire extinguishers :- Minimax/ Minilec/ Safeguard/ Safex/ D-Flame/ Kanex.
(18) Ceiling Fan Capacitor (Metal Body) :- EPCOS/ Havells/ Tibcon/ Keltron.

Signature of contractor



Special Condition for Electrical work

1. The work shall be carried out as per national code or C. P. W. D specifications for works with correction slips issued up-to date unless otherwise specified in the schedule of quantities for the works.
2. The following Indian Standard Specifications and Codes of Practice will apply to the equipment and the work covered by the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and/or IEC Standards shall be applicable.

BIS certified equipment shall be used as a part of the Contract in line with Government regulations. Necessary test certificates in support of the certification shall be submitted prior to supply of the equipment.

It is to be noted that updated and current Standards shall be applicable irrespective of those listed below.

Low voltage Switchgear and Controlgear specifications	IS 13947 : 1993
Part I – General	
Part 2 – Circuit Breakers	
Part 3 – Switch Fuse Units	
Part 4 – Contactors and Motor Starters	
Part 5 – Control Circuit Devices	
Electrical Relays for power system protection	IS 3231 : 1986
Low voltage Switchgear and Control gear assemblies	IS 8623 : 1993
Marking of Switchgear busbars	IS 11353 : 1985
Degree of Protection of Enclosures for low voltage switchgear	IS 2147 : 1962
Code of Practice for selection, installation and maintenance of Switchgear	IS 10118 : 1982

4. No under-ground work or above the false ceiling shall be covered until the same has got approved by the Engineer-in-charge. The contractor will supply the drawings of specific works for approval, if required
5. All the old wiring has to be dismantled with proper care. The reusable old materials if any are to be handed over to departmental store with proper documentation and the other non reusable (nil reselling value) will be disposed by the contractor. The contractor shall clear the site thoroughly of all scaffolding materials & rubbish etc. left out of his work & dress the site around the building to the satisfactions & his decision in writing shall be final & binding on all concerned
6. Special care to be taken to avoid any theft of electrical fittings and fixtures while executing the work.
7. The location of Panel / DB / Switch board / Light point / Fan point will be as per existing location or as per the instruction of Engineer-in-charge.
8. All the wiring will be done with feruling and cable / Wire termination by required size or lugs of required materials and It should be noted that license wire man shall only be allowed for the wiring work.

Electrical safety at work site

The contractor will identify one of the supervisors for taking care of implementation of Safety systems.

The Contractor should follow the following General Guidelines governing the safety rules as laid down under:

Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs as and when site safety co-coordinator insists eye protection has to be provided.

1. All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job.
2. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach to be ensured into every excavation.
3. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
4. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.



5. Material shall not be thrown from the height. If required, the area shall be barricaded and one person shall be posted outside the barricading for preventing the tre-passers from entering the area.
6. Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.
7. All electrical connections shall be made using 3 or 5 core cables, having a earth wire.
8. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
9. A tools and tackles inspection register must be maintained and updated regularly.
10. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work every day.
11. All the unsafe conditions, unsafe acts identified by contractors, reported by site supervisors and / or safety personnel to be corrected on priority basis.
12. No children shall be allowed to enter the workplace.
13. All the lifting tools and tackles shall be stored properly when not in use.
14. Clamps shall be used on Return cables to ensure proper earthing for welding works.
15. All the pressure gauges used in gas cutting apparatus shall be in good working condition.
16. Proper eye washing facilities shall be made in areas where chemicals are handled.
17. Connectors and hose clamps are used for making welding hose connections.
18. All underground cables for supplying construction power shall be routed using conduit pipes.
19. Spill trays shall be used to contain the oil spills while transferring / storing them.
20. Tapping of power by cutting electric cables in between must be avoided. Proper junction boxes must be used.
21. Non-compliance to above shall invite a penalty recovery as per 3.22.8.

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ESTATE (E & M) WORKS SECTION
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भारतीय प्रौद्योगिकी संस्थान खड़गपुर

Sub. : **Approval of Materials**
N/W :
Work Order No. :
Name of Agency :

Sl. No.	Description of Material	Details of Technical Specification (Separate sheet may be attached, if required)	Make of the Material	Remarks

.....
(Signature of Site-in-Charge)

.....
(Signature of Agency)

Recommendation of Engineer-in-Charge:

Approval of Section-in-Charge:

Declaration by the Contractor

- 1. The above mentioned Old Materials were received from the mentioned work and return to EMD/Site Store
..... Yes /No
- 2. The above mentioned Materials were received free-of-cost and used in the mentioned work.

..... Yes /No

.....
(Signature of Contractor)

Declaration by Site-In-charge

- 1. The Materials used were checked and necessary stock entry as mentioned above was done.
..... Yes /No
- 2. The Materials were received and necessary stock entry as mentioned above was done

..... Yes /No

.....
(Signature of Site-in-Charge)

Declaration by Engineer-In-charge

- 1. Verified the above

.....
(Signature of Engineer-in-Charge)