



॥ सा विद्या या विमुक्तये ॥

ಭಾರತೀಯ ತಂತ್ರಜ್ಞಾನ ಸಂಸ್ಥೆ ಧಾರವಾಡ

भारतीय प्रौद्योगिकी संस्थान धारवाड

Indian Institute of Technology Dharwad

Near High Court, PB Road, Dharwad-580011

TEL NO: +91 836 2212 839

TENDER FOR ELECTRICAL WORK OF AUDITORIUM
AT WALMI CAMPUS IN IIT DHARWAD

Tender no.: IITDH/MMD/IPS/2019-20/59

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD
Near High Court, PB Road, Dharwad-580011
TEL NO: +91 836 2212 839

Tender no.: IITDH/MMD/IPS/2019-20/59

NOTICE INVITING TENDER

Name of the work:	Tender for electrical work of auditorium at WALMI campus in IIT Dharwad
Type of Tender:	Open Tender Enquiry
Estimate Value:	Rs.27 lakhs approx.
Cost of tender documents	Free of cost
EMD:	Rs.54,000/- (DD/PO in favour of The Registrar, IIT Dharwad) to be attached with the tender as separate sealed envelope.
Issue of tender:	11 th December, 2019
Last date for submission of tender:	Date: 26 th December 2019 Time: 10:00 AM

Two Bid System: -

The two bid system will be followed for this tender. In this system bidder must submit their offer in separate sealed envelopes as – Technical Bid and Financial Bid.

Separate technical bid and commercial bid envelopes should be clearly marked as "Envelope No. 1 - Technical Bid" and "Envelope No. 2 - Financial Bid".

Both these sealed covers are to be put in a bigger cover which should also be sealed and duly super-scribed with our Tender No. & Due Date and to be submitted to the concern department/section mentioned in tender document.

Note: The technical offer should not contain any price information. If the price quoted is submitted in technical bid the tender will be rejected at the sole discretion of IIT Dharwad. Initially Technical Bids will be opened and evaluated by the works committee. Financial bids of only Technically qualified bidders will be opened later.

Contract/ Work Order will be awarded to the lowest bidder (L1) identified.

Covers Information / Submission of Bids

Cover No.	Cover Type	Description
1	Technical	EMD, Technical Specification, Tender Document, Schedule of Requirement and Compliance, Bidders Information/Indian Agent Information, Previous work Orders etc.
2	Financial	Financial Bid
Opening of technical bid:	Date: 26 th December 2019 Time: 10:30 AM	
Schedule of Opening of Commercial Bids	Schedule for opening of Commercial Bid will be notified only to the bidders qualifying the Technical Bid. Presence of the bidder or his/her authorized representative at the time of opening of the Commercial bid is highly preferable.	
Contacting Authority:	The Assistant Registrar (MMD) Near High Court, P B Road Dharwad-580011 E-mail: arrrmm@iitdh.ac.in Telephone: 91-836-2212-839	

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD

Near High Court, PB Road, Dharwad-580011

TEL NO: +91 836 2212 839

Tender no.: IITDH/MMD/IPS/2019-20/59

1. GENERAL CONDITIONS OF CONTRACT

Sealed tenders are hereby invited on behalf of the Indian Institute of Technology, (IIT) Dharwad, for electrical work of auditorium at WALMI campus in IIT Dharwad.

Time for completion: 45 Days from issue of Work order.

2. QUALIFICATION CRITERIA:

Only those bidders fulfilling the following Eligibility Criteria should participate in the tender: -

- 2.1 Bidders should be registered Government Contractor of Class I and above and must be in the business of Electrical works since 3 years or more (i.e. the firm must be in the business since December 2016 or earlier).
- 2.2 The Bidder must have carried similar electrical work as per following range in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 3 years (i.e. must have successfully completed the work during December 2016)
 - a. At-least three completed and similar annual works of 40% estimated value of this contract (i.e. Rs.7 lakh) (OR)
 - b. At-least two completed and similar annual works of 60% estimated value of this contract (i.e. Rs.16 lakh) (OR)
 - c. At-least one completed and similar annual work of 80% estimated value of this contract (i.e. Rs.22 lakh)
- 2.3 A Certificate/Undertaking on the letter head of the Company to the effect that the bidder/Manufacturer has not been blacklisted anywhere in India or abroad by any organization. A self-certification to this effect is required to be enclosed.
- 2.4 The Bidder should be registered with concerned statutory authorities for GST/Income Tax etc. The bidder should furnish relevant GST registration documents and PAN/TAN copies along with the bank details of the firm.

Any prospective bidder, not satisfying any of the above mentioned qualification criteria shall be disqualified on technical grounds and the price bid of such disqualified bidder will not be considered for this tender.

3. Tender documents can be obtained from IIT Dharwad website:

https://www.iitdh.ac.in/announcements_worktenders.php

4. Tenders are invited under Open Tender Enquiry and two bid system for electrical work of auditorium at WALMI campus in IIT Dharwad. Technical Bid along-with supporting documents, Earnest Money Deposit (in form of DD/Bankers Cheque in favour of **The Registrar, IIT Dharwad** payable @ Dharwad) shall be submitted in separate sealed envelopes and then encased inside one sealed envelope super scribed 'Technical Bid for electrical work of auditorium at WALMI campus in IIT Dharwad'. All the pages of this tender document along with necessary Appendices (as

applicable) duly signed and stamped, will form the technical bid.

The bidder must submit the following documents/information within the Technical Bid (all 7 criteria to be mandatorily fulfilled for technical qualification):

- a) The entire tender document duly signed on each page.
- b) Copy of the valid PAN Card, Goods & Sales Tax Registration be forwarded.
- c) Proof of establishment of company/business for a period of more than 3 years.
- d) Bidder must have carried similar electrical work as per following range in reputed organizations/IITs/IIMs/Govt. offices/PSUs/Central Universities etc. during a period of last 3 years. (i.e. must have successfully completed the work during December 2016)
 - i. At-least three completed and similar annual works of 40% estimated value of this contract (i.e. Rs.7 lakh) (OR)
 - ii. At-least two completed and similar annual works of 60% estimated value of this contract (i.e. Rs.16 lakh) (OR)
 - iii. At-least one completed and similar annual work of 80% estimated value of this contract (i.e. Rs.22 lakh)
- e) A Certificate/Undertaking on the letter head of the Company to the effect that the bidder/Manufacturer had not been blacklisted anywhere in India or abroad by any organization.
- f) In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate explicitly mentioning nature of operation shall be forwarded in addition.
- g) Copy of Income tax returns for last three consecutive financial years (period ending 31.03.2019).

5. The Price Bid as per Annexure-2 with this tender document, should be duly filled, stamped and signed by the authorized signatory of the agency/firm/company and sealed in a separate envelope super scribing 'Financial Bid for electrical work of auditorium at WALMI campus in IIT Dharwad'.

6. The Technical bid and the Price bid shall be sealed in one envelope super scribing 'Tender for electrical work of auditorium at WALMI campus in IIT Dharwad'.

7. The technical bids shall be opened as per schedule placed at Notice Inviting Tender (NIT). The vendors who are short listed after qualifying technical bid evaluation will be intimated the date of opening of price bids subsequently through proper means. IIT Dharwad reserves the right to reject any or all the tenders/bids without assigning any reason thereof.

8. Tenders are to be submitted in a serially numbered & bounded manner. The tender should be submitted in the **tender box by the tenderer kept in Office of Assistant Registrar up to 10:00 AM** on or before last date and time of bid submission as mentioned in Notice Inviting Tender (NIT) and will be opened by Assistant Registrar or his authorized representatives in his office / any other place in the Institute on date and time of tender opening as mentioned in NIT, in the presence of such tenderers who desire to attend.

9. Tenders should be addressed to Assistant Registrar, Indian Institute of Technology Dharwad, Near High Court, PB Road Dharwad 580011. The name of the tenderer and the name of the work must be noted on the above.

10. Income Tax PAN number & GST registration number is to be submitted along-with the bid.

11. The tenderers should write in figures as well as in words for the rates quoted by them on the proper form of the tender. All corrections / over writings must be attested by the dated initials of the contractor. The tenderer is advised to avoid offering discount /rebate in the covering page or at the end of the schedule. Instead the same can be incorporated in the unit rate by reducing the unit rates. If at all offered, the discount / rebate percentage offered is to be written in words such as Five

percent / point Five percent etc.

12. The rates quoted shall be inclusive of all taxes, royalties etc. The contractor shall quote for all the items whose rates are asked and not leave any blanks all taxes including GST shall be borne by the contractor.

13. The offer should be valid for 90 days from the date of opening for the purpose of issue of acceptance letter. The amount quoted herein after referred to as Base rate must be firm and inclusive of all charges of any kind and inclusive of any kind of liability from / to any authority. GST shall be mentioned separately and must not form part of base price. There will be no extra payment or payment of escalation in the amount under any circumstances whatsoever. Statutory taxes will be deducted at source from the payment against the bill amount.

14. No extra item or substitute item shall be allowed out without prior approval in writing.

15. Work has to be carried out in consultation with the representative as authorized by IIT Dharwad.

16. The tenderer should submit the requisite interest free Earnest Money Deposit (EMD) by pay order or Demand Draft in favour of the **The Registrar, IIT Dharwad**. Tenders not accompanied by the Earnest Money Deposit shall not be considered. The EMD of unsuccessful tenderers will be returned within one month of award of work. In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate from MSME explicitly mentioning the tender work herein, is required to be submitted.

17. The contractor whose tender is accepted will be required to furnish security deposit for the due fulfillment of his contract. Security deposit shall be 5% (Five percent) of the amount of work order for DLP (Defect Liability Period) of 06 months (Six months) from the date of commissioning / handing over of the work. **The Earnest money deposit paid at the time of tender, will be released after payment of final bill.**

18. The full value of Earnest Money Deposit is to be absolutely forfeited to the Director, IIT Dharwad or his authorized representative, with prejudice to any other rights or remedies to the Director, IIT Dharwad or his authorized representative, if the contractor fails to commence the work within 15 days continuously from the schedule date of commencement specified.

19. Defect Liability period will be 06 months from the date handing over the finished work for IIT beneficial use.

20. No part of the contract shall be sublet without written permission of IIT Dharwad nor shall transfer be made to power of Attorney authorizing others to receive payment on contractor's behalf.

21. IIT Dharwad reserves the right to reject any tender or all the tenders without assigning any reason therefore.

22. The Contractor shall comply with the provisions of all Acts, Statutes, Rules, Regulations etc. of the Central and State Government as the case may be that may apply to his case and if necessary, get himself duly registered as required by the said Acts, Statutes, Rules, Regulations etc.

23. The contractor for the work shall be liable to pay applicable tax (including Taxes on works contract to state Government) if any that may be levied by the State or Union Government. Any request contrary to this will not be accepted.

24. Completion period: 45 days from issue of work order.

25. Terms of payment: As per the measurements at site and on certification of the site engineer.

26. It shall be open to the Institute to abandon or give up at any stage of the construction of any of the said works or any part thereof. In the event of such abandonment or giving up or in the event of termination of the agreement, the Contractor shall be paid up to the work performed by then.

27. Termination of contract If the Contractor fails to perform any of its obligations under this agreement or if Institute is dissatisfied with the services of the Contractor, Institute may issue seven days' written notice intimating the Contractor of their failures or deficiencies and calling upon Contractor to rectify within such time as may be specified in the notice and if the Contractor fails to perform such obligation or make good such deficiencies as pointed out to the Contractor in the notice, Institute may terminate the services of Contractor under this agreement. Institute may also terminate the Contract hereunder:

- i) if the firm is adjudged bankrupt or
- ii) if they make a general assignment for the benefit of their creditors or
- iii) if a receiver is appointed on account of their insolvency or
- iv) they disregard law, ordinances, rules, regulations or orders of any public authority having jurisdiction on the works.

The termination shall be without prejudice to all rights, liabilities and remedies that have arisen or accrued till date of such termination or that may arise on account of such termination and Institute may get the project completed by whatever method they may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment, if due, until the loss, damage or expense incurred by Institute due to breach of this agreement by Contractor have been settled.

In case the Contractor abandons the work during the course of the project, the Institute has the right to appoint an alternate Contractor or make an arrangement for carrying out the work of Contractor, at the risk and cost of the Contractor. Traveling / daily allowances shall not be payable to the Contractor, its representatives, officials and consultants engaged by it for their visit to construction site, offices of local authorities, Employer's office or any other place in Dharwad.

The scope of work broadly described herein and assigned to Contractor, as their area of responsibility is inclusive of all constancy and other services required in connection with the completion of work whether specifically mentioned herein or not and rendering such constancy services will not entitle the Contractor to charge any additional fees in as much as the same are included in the overall professional fees payable to them.

28. Liquidated Damages Clause:

If any delay in execution of the works is attributable to the acts or omissions and commissions of Contractor Institute shall be entitled to recover liquidated damages at the rate of 0.5% of the total fees per week of delay limited to maximum of 10% of the total actual fees payable.

29. Professional indemnity: Contractor warrants that it shall exercise high degree of care and diligence in rendering the services pursuant to this agreement and that; such services shall be of a quality and standard satisfactory to Institute. The Contractor shall indemnify Institute from any damage or loss arising from such lack of care and diligence or arising out of any unsatisfactory performance of service by Contractor. The contractor is required to obtain a Contractor All Risk (CAR) policy for successful and safe completion of project. Contractor shall provide a copy of this

policy to Institute showing that such insurance has been taken and being maintained and that all the premia thereon have been paid. A certified copy of such insurance policy shall be deposited with Institute.

30. Dispute Settlement: In case of any dispute or difference arise between the parties during the progress of or after construction of this contract or touching or relating either to the said buildings or works, or to any other matter or thing arising directly or indirectly under this contract, then and in such an event the same shall be referred to Director, IIT Dharwad as the SOLE ARBITRATOR who shall alone consider and determine the same, whose decision / award shall be binding and conclusive upon both the said parties and this clause shall be deemed a submission within the meaning of Arbitration and Conciliation Act 1996 or Statutory modification or re-enactment thereof. It is specifically agreed that the Contractor shall continue to render its services provided herein with all the due diligence, professional skill and tact notwithstanding that any matter, question or dispute has been referred to arbitration. The venue of Arbitration proceedings shall be Dharwad. It is further agreed between the parties as hereto that the Dharwad Courts alone shall have the exclusive jurisdiction.

31. Site: The contractor shall remove all surplus materials, debris etc. out of the IIT Campus from the site of work on completion work and will hand over the site clean before the bill is processed for final payment. Dismantled materials if any (declared by Engineer-in-charge of the work) shall be returned to the Estate/ Electrical stores by the contractor at his own cost. The disposal of material shall be done in environmental friendly way and complying with the local rules and regulations.

32. Security

a. Movement of contractor's materials:

Any materials which are removed from the site of work and are required to be taken out from the IIT campus, the contractor should follow the following procedure:

The contractor shall apply in writing to the Engineer- in-charge the details of the materials to be removed including which are rejected etc. This application shall be endorsed by the engineer in charge or his authorized representatives. The materials shall only be allowed to go out of IIT campus after counter signature of the security officer and checked at the gate. No materials/tools will be allowed to be brought on holidays/Saturdays/Sundays inside the campus. Contractors can bring the materials/tools/between 0900 hours and 1700 hours on any working day (Monday to Friday). This may please be noted.

b. Search:

Thorough search of all persons and transport shall be carried out at each gate and for as many times as gate is used for entry or exit and may also be carried out at any time or any number of times at the works site within the restricted area.

c. Working Hours:

The units controlling restricted areas usually work during five days in the week and remain closed on Saturday and Sundays. The working hours available to contractor's labour and staff are however appreciably reduced because of the time of entry and exit during working hours. The exact working hours, working days and non-working days observed for the restricted areas where works are to be carried out shall be deemed to have been ascertained by the contractor before submitting the tender. The tenderer's attention is invited to the fact that the total number of working hours for units are prescribed in regulations and no work beyond the prescribed working hours shall be permitted.

d. Entry and Exit:

The contractor, his agents, representatives, workmen, etc. and his materials, carts, trucks or other means of transport, etc. will be allowed to enter through and leave from only such gate or gates and at such times as the concerned authorized in charge of the restricted area may, at their sole discretion, permit. Contractor's authorized representatives, if required, are to be present at the places of entry and exit for the purpose of identifying his carts, trucks, etc. to the personnel in charge of the security of the restricted area.

e. Labour Law:

The work will be executed strictly following the Labour Laws of Central Govt & State Govt as may be applicable.

33. Evaluation Criteria

The L-1 will be decided on the Grand Total Rate quoted for the work. All levies/taxes (i.e. GST etc.) must be clearly mentioned in the row provided for the purpose (as per format of commercial bid).

However, the decision of the Competent authority will be final and binding in awarding the order. In case of any clarification required, the same can be clarified from IIT Dharwad before submission of the bids.

The bidders must also note that the quantities may vary (10% more or less). Additional items may also crop up other than the listed items as per site conditions.

Bidder Information

1.	Name of the Bidder	
2.	Address of the Bidder	
3.	PAN No.	
4.	GSTN No.	
5.	State of GST Registration	
6.	E-mail	
7.	Contact Person's Name & Designation	
8.	Mobile No.	

INDIAN INSTITUTE OF TECHNOLOGY DHARWAD
Near High Court, PB Road, Dharwad-580011
TEL NO: +91 836 2212 839

Tender no.: IITDH/MMD/IPS/2019-20/59

SCHEDULE OF WORK / BOQ / PRICE BID
(To be quoted on the letter head of the bidder)

Bill of Quantity (to be quoted only in INR)						
Sl. No.	Item code	Particulars/Description	Unit	Qty.	Unit Rate	Amount
A	1	SAFETY ACCESSORIES--(MAHARASHTRA PWD)				
1	10.2.30	Supplying and fixing PVC Synthetic elastomer electrically insulating mat with class A insulation conforming to IS: 15652 –2006 & CPRI tested having 2 mm thickness upto 3.3 Kv	m	2		
2	10.2.35	Supplying and erecting D.C.P. type Fire Extinguisher 9 kg capacity cartridge type with Gun Metal cap 150 gram CO2 gas cartridge, powder and brackets conforming to IS 2171-1985 and complete erected with necessary clamps made from 50x6 mm M.S. flat with nuts & bolts grouted in wall complete	Each	6		
3	10.2.25+ 10.2.24	Providing Floor mounting stand for keeping 4 Nos. of FIRE buckets 1500mm in length, 900mm in height frame made out of 30x30x4mm angle iron with cross supports for legs, welded with 4 hooks and duly painted with one coat of red lead and two coats of silver paint.	Each	6		
4	10.2.22	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated.	Each	1		
5	10.2.36	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 2878 /15683 Complete erected with necessary clamp made front 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Each	3		
B	1	PVC CONDUITS AND ITS ACCESSORIES				
	1.2	Open Conduit System Supplying heavy gauge PVC conduit pipediamm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.				
1	1.2.1	20mm dia 2mm thick	Mtr	225		
1	1.1.2	25mm dia 2mm thick-Stage	Mtr	960		
2	1.1.4	40mm dia 2.5mm thick- Auditorium-Drop along the wall	Mtr	100		

3	1.12	Supplying and fixing metal fan box with round hook	Each	9		
C		Concealed Conduit System				
	1.3	Supplying dia 2mm /2.5mm thick heavy gauge PVC conduit pipe with bends, metal junction boxes adhesive paste etc., and bracing U or J hooks and cement plastering up to the surface of the brick level and run with 18SWG GI fish wire run throughout the conduit wherever necessary.				
1	1.3.1	25mm dia 2mm thick- (Green Room & Entrance)	Per Mtr.	100		
2	1.3.4	40mm dia 2.5mm thick- (Drop along the wall & below flooring)	Mtr	80		
D	1.8	Supplying and fixing of PVC casing and capping on the wall or ceiling using necessary materials like bends, screws at an interval of 300mm etc. as required.				
1	1.8.2	25mm	Mtr	100		
2	1.8.3	32mm	Mtr	75		
E	1.4	Supplying and fixing sheet metal box made out of 18 SWG sheet metal with necessary holes for cable/conduit entry as required with one coat of primer of approved make etc.				
1	1.4.5	200x90x65mm	Each	14		
2	1.4.1	75x75x65mm	Each	14		
F	1.9	Supplying PVC/GI flexible conduit pipe...mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles at an interval of 300mm using NF screws and on either end of the pipe terminated completely				
1	1.9.2	25mm-Along with pipe for stage	Mtr	5		
		32mm-Along with pipe for stage	Mtr	0		
2	1.1	Supplying And Fixing "S" Hook made out of 14mm dia M. S. Rod.	No	11		
3	1.11	Supplying And Fixing M.S. Rafter Clamp Set made out of M.S. Flat & 14mm M.S. rod.	No	11		
G	2.3	Point Wiring Using copper without switch				
		Supplying and wiring adopting loop system in existing PVC Conduit/ Casing Capping using Copper PVC insulated multi strand 2X1.5 Sqmm Copper wire without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/ PVC round block complete for each outlet.				
		Point Wiring Using Class A Material				
1	2.3.1	Short point upto 3 Mtr from tapping point to out let via switch box.-(Wash Room)	Point	15		
2	2.3.2.	Medium point above 3 Mtrs upto 6 Mtrs from tapping point to out let via switch box.-(Wash Room)	Point	6		
3	2.3.3	Long point above 6 Mtrs upto 10Mtsr from tapping point to out let via switch box.-(Passage & Entrance)	Point	50		
4	2.3.5	Three outlet in a row, above 6Mts upto 10Mtr from	Point	9		

		tapping point to out let via switches box				
H	2.5	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, multistrand and Copper conductor single core cable in open or concealed system of wiring.				
		Group A				
1	2.5.2	1.5 sqmm	Mtr.	2410		
2	2.5.3	2.5 sqmm	Mtr.	280		
3	2.5.4	4 sqmm	Mtr.	360		
I	2.8	Supplying and drawing of flexible multicore cable manufactured with electrolytic grade copper with flexible copper with low conductor resistance confirming to table 3 class 5 of IS 8130-1984 and (virgin) PVC insulation and sheathed for working voltage upto 1100 volts with specified IS 694;1990 & confirming to the attached GTP of Group-A				
1	2.8.2	3C x 1.5 sq.mm -LDB TO LIGHT POINTS - AUDITORIUM	Mtr	130		
2	2.8.4	6C x 1.5 sq.mm -LDB TO LIGHT POINTS - AUDITORIUM	Mtr	10		
		SWITCHES SOCKETS & ACCESSORIES				
J	3.5	Supplying and flush mounting powder coated / galvanized metal box suitable for mounting modular switch plates. The box should be firmly flush mounted after due groove cutting in Brick/Stone/C.C wall				
1	3.5.1	1-3Way-Wash room & Entrance	Each	7		
2	3.5.2	4-5Way	Each	2		
3	3.5.3	6Way	Each	4		
4	3.5.4	8Way	Each	2		
5	3.5.5	10-12Way-Near Stage Auditorium	Each	3		
K	3.6	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos of machine screws, bolts nuts etc. Complete on the existing metal / PVC box.				
		Using Group "A" materials				
1	3.6.1	1-3 Module	Each	7		
2	3.6.2	4 Module	Each	2		
3	3.6.3	6 Module	Each	4		
4	3.6.4	8 Module	Each	4		
5	3.6.5	10 Module	Each	1		
6	3.6.6	12 Module	Each	2		
L	3.7.A	Supplying and fixing of modular switch/Socket / Stepped electronic fan regulator/dimmer/telephone socket etc. on existing modular switch plate.				
		Using Group "A" materials				
1	3.7.A.1	6 amps one way	Each	80		
2	3.7.A.2	6 amps two way	Each	2		
3	3.7.A.3	6 amps 3-way socket.	Each	23		
4	3.7.A.4	Stepped Fan regulator	Each	11		
5	3.7.A.7	16 amps one way switch	Each	41		

6	3.7.A.8	6Amps Bell push	Each	2		
7	3.7.A.10	6 / 16 amps universal socket -Along the stage wall	Each	41		
8	3.7.A.11	TV/Telephone socket	Each	2		
9	3.7.A.12	RJ45/ I.O. outlet	Each	14		
M	3.11	Extra for supplying and fixing 4mm thick white plastic plate and covering for junction boxes of size.... Mm dia conduit using necessary machine screws.				
1	3.11.1	80mm dia-Fan & Surface light fitting.	Each	50		
2	3.11.2	110mm- Fan & Surface light fitting.	No	30		
N	3.14.A	Supplying and fixing of metal clad industrial plugs and sockets. PLUG 2pole+earth 250V				
1	3.14.A.2	20 Amps- ODU OF 2 TR	Each	2		
O	3.14.B	Supplying and fixing of metal clad industrial plugs and sockets. PLUG 3pole+earth 440V				
1	3.14.B.4	30 Amps	Each	3		
P		LUMINARIES / LIGHT FIXTURES & ACCESSORIES				
	4.19	Supplying Halogen Lamps fitting complete with lamp. The fitting shall be non-corrosive high pressure die cast aluminium housing with low copper content grey powder coated finish including wiring, suitable to operate on 230/250Volts 50Hz AC supply with halogen lamp.				
1	4.19.1	500Watts	Each	2		
2	4.19.2	1000Watts	Each	2		
Q	4.29	Supplying of 2 / 4feet LED PVC square batten with high quality diffuser with life of 25000 burning hours & 70% of lumen maintenance with CRI>80. Power Input:220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years warranty against any manufacturing defect working under standard electrical condition.				
1	4.29.1	LED light fitting 2' - 14 watts- Above wash basin	No	4		
2	4.33.1	LED modular down light 1'x1'-36 watts- Wash Rooms	No	3		
3	4.3	LED Down Light Supply of recess mounted rolling type LED Down light with 4/6W GU 10 LED Lamp Rib Fabricated from Die cast aluminium with white powder coated prewired to mains connector with suitable driver & having swivelling unit of aluminium die cast eye ball & LED Lamp position retained by circular wire spring. 5 years Warranty against any manufacturing defect working under standard electrical condition. LED square or round down light 5x1 watts	No	13		
3	4.32	Supply of LED Square Recessed Down lighter with 18W System Wattage. Housing shall be with powder coated pressure die cast aluminium alloy with corrosion resistant polyester powder coat & with extended heat sink. Diffuser/cover made of Lexan plastic material. Rated life shall be L70 @ 50000 Hrs. which shall has inbuilt electrical protection like	No	30		

		over/under voltage, short circuit, overload, open circuit & miswiring. Driver is on constant current driver output driver @ 0.06A with PF > 0.9 with line voltage @ 220-240V @ 50/60Hz, driver efficiency > 85% & THD<15%. LED Efficiency > 130 lm/W at 1W & Fixture Efficiency >75lm/w with CRI > 75 with injection moulded Polycarbonate lens. 5 years Warranty against any manufacturing defect working under standard electrical condition.				
R	4.33	Supply of 2'x2' LED recessed luminaire with ...Watts system wattage. Housing shall be with pressure die cast aluminium alloy with corrosion proof resistant polyester power coated. Driver operates with voltage range from 100V to 270V 50/60 Hz with short circuit, overload & miss-wiring protection. Lumen Maintenance of 70% at 50000 Hrs. Injection moulded poly carbonate diffuser for better mechanical stability, light transmission & avoid pot hole effect. Junction temperature shall be < 70 degree Celsius. Driver is on constant current driver @ 0.06A with PF > 0.92 with line voltage @ 220-240V @ 50/60Hz, driver efficiency > 85% & THD<15%. LED Efficiency > 130 lm/W at 1W & Fixture Efficiency >75lm/w with CRI > 75 with injection moulded Polycarbonate lens with < 80mm depth. 5 years Warranty against any manufacturing defect working under standard electrical condition				
1	4.33.3	LED modular down light 2'x2'-55 watts- Auditorium	No	33		
S	4.35	LED Street light. Supply of LED Streetlight with pressure die cast aluminium housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture withW System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited				

		by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.				
1	4.35.1	LED Streetlight 24watts-Neart AHU	No	3		
T	4.37	LED Flood Light. Supplying of LED Floodlight withW System Power consumption pressure die cast aluminium housing with powder coating with IP 65 protection. 1, 200-275V voltage with electronic Driver, PF>0.9, should meet ANSI 2G Vibration test, Compliance to UL/CE with Class I. System rating shall be 50K hrs. @ Lumen maintenance of 70%, system efficacy > 80lm/w. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture withW System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer.				
1	4.37.1	LED Floodlight 60W- Stage	No	8		
2	4.37.3	LED Floodlight110W- Stage	No	10		
U	6.12	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.				
1	6.12.3	60-70Amps-For AHU	Each	3		
V	6.13.B	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Microprocessor release and Earth Fault as per IS-13947. (Icu = Ics) FOUR POLE				
1	6.13.B.6	100Amps 25kA.- Ouotgoing -HVAC-PANEL	Each	2		
2	6.13.B.7	125-160Amps 25kA.- Incomer main Panel	Each	1		

W	6.15	Supplying and fixing regular MCCB distribution Panel confirming to IS 8828, on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing of suitable type capacity MCCB's as an incomer for 3 phase Double door with necessary bus bar completely wired to use on 440Volts 3phase 4 wire powder coated painting etc., complete with a provision for fixing of single/three phase suitable capacity MCCB/MCB's as outgoing confirming to IS8828.				
1	6.15.1	4Way-HVAC with 100A TP -I/C	Each	1		
X	6.16	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.				
1	6.16.1	5-32Amps SP	Each	87		
Z	6.17.I	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing suitable type capacity MCB's single phase / 3 phase / single door with powder coated painting. Made out of 14 SWG MS enclosure. I - Single Door				
1	6.17.I.1	4Way SP &N	Each	1		
2	6.17.I.3	12Way SP &N	Each	6		
AA	6.17.II	Supplying and fixing regular MCB distribution boards on wall / wood board / flush mounting using required clamps, bolts, nuts etc., with provision for fixing suitable type capacity MCB's single phase / 3 phase / single door with powder coated painting. Made out of 14 SWG MS enclosure. II - Double Door				
1	6.17.II.4	4Way TP &N	Each	4		
AB	6.18	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker [ELMCB] 240/450V up to 300mA sensitivity on existing wood/panel board.				
1	6.18.1	16-25 Amps 2 pole-DG Panel Room DB	Each	7		
2	6.18.2	32-40 Amps 2 pole	Each	3		
3	6.18.4	63 Amps 4 pole	Each	3		
AC	6.31	Supplying of multi-function digital meter with three line back light LCD type display for voltage, Current, frequency, Power, power factor, KVA, KWH,KVAR suitable for 3 phase, 4 wire LT network with IP 54 degree of protection and completely wired as required with communication Port and Class 0.5s accuracy.	Each	1		
1	6.32	Supplying, fixing and wiring 50/5 to 400/5Amps 5VA burden Current Transformer. Class 0.5 accuracy with Tape Wound.	Each	3		
2	6.36	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 220v A.C. 50 Hz 12/24v D.C.	Each	6		
AD	6.38	Supplying amps rated 3phase with neutral				

		bus bar using required capacity electrolytic aluminium strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic/FRP/DMC insulator which are mounted on powder coated 40x6mm M.S. flat frame work in existing panel board. The bus bar shall have suitable holes for termination of incoming and outgoing cables as per IS specification with necessary bolts, nuts and washers etc., complete.				
1	6.38.2	250Amps 4x30x10mm Aluminium Strips	Mtr	4		
AE	6.39	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.				
1	6.39.1	40x40x6mm	Mtr	170		
2	6.39.2	50x50x6mm	Mtr	50		
AF	6.40	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete.				
1	6.40.2	16SWG	sq.cm	86400		
AG	6.41	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph. / 1 Ph. connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.				
1	6.41.1	200mmx200mmx98mm-AHU+Auditorium light fitting.	Each	50		
AH	6.43.A	Supplying and fixing of Metal Socket set of 2pole and earth plugs and socket for incorporating SP and TP MCB (Without MCB). The entire plug and socket shall be mounted in a thermoplastic / powder coated metal box & wired Completely. SP & N				
1	6.43.A.2	20Amps	Each	2		
AI	6.43.B	Supplying and fixing of Metal Socket set of 2pole and earth plugs and socket for incorporating SP and TP MCB (Without MCB). The entire plug and socket shall be mounted in a thermoplastic /				

		powder coated metal box & wired Completely. TP & N				
1	6.43.B.4	30Amps	Each	3		
AJ		EARTHING				
1	7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cut-outs and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 Mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	No	1		
AK	7.3.A	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. GI strip				
1	7.3.A.1	25x3mm	Mtr	75		
2	7.3.A.5	600x600x3mm GI Plate	Each	1		
AL	7.4	Supplying of 1.1 KV LT UG cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A.				
1	7.4.4	4 core 16 sqmm - AHU TO PDB-1 HVAC	Mtr	75		
2	7.4.6	3.5 core 35 sqmm	Mtr	55		
A M	7.6	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminium Phase Conductor, and Stranded Messenger Conductor with all aluminium Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.				
1	7.6.2	3 X 16 + 1 X 25 SQ.MM	Mtr	65		
AN	7.8.A	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. In existing trench/duct.				
1	7.8.A.1	6 sqmm to 16 sqmm	Mtr	70		
2	7.8.A.2	25 sqmm to 75 sqmm	Mtr	50		
AO	7.8.B	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. On wall /Structure				
1	7.8.B.6	6 sqmm to 16 sqmm	Mtr	5		
2	7.8.B.7	25 sqmm to 75 sqmm	Mtr	5		
AP	7.9	Digging of trench of 0.6m deep x 0.50 Mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)				
1	7.9.1	In soil (ordinary)	Mtr	65		

2	7.9.2	In soil (hard)	Mtr	5		
3	7.9.3	Cutting road surface	Mtr	5		
4	7.9.4	Asphalt cutting	Mtr	2		
5	7.9.5	C.C. cutting	Mtr	1		
6	7.10	Providing and filling sand in excavated trench to cover already laid UG cable to a depth of 150mm all-round the cable.	Mtr	75		
AQ	7.12	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.				
1	7.12.1	40mm	Mtr	2		
2	7.12.3	65mm	Mtr	2		
AR	7.14	Supplying and fixing of heavy duty cable glands suitable for UG cable of 1.1 KV class (metal only)				
1	7.14.2	25mm dia	Each	18		
2	7.14.4	45mm dia	Each	2		
AS	7.19	Supplying and fixing 2mm thick perforated cable tray with powder coated paint on existing MS angle support using necessary GI bolts/nuts and washer or welding as required.				
1	7.19.1	150x50mm	Mtr	70		
2	7.19.2	300x50mm	Mtr	15		
AT	7.20	Supply and laying double walled corrugated (DWC) HDPE Pipe including all necessary connecting Sockets/Couplings/Tees/Bends/End-caps of same materials in existing trench as per IS 14930 part -II suitable for drawing underground cables.				
1	7.20.1	40mm OD / 32mm ID	Mtr	10		
AU	7.21	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.				
1	7.21.6	16 sqmm	Each	24		
2	7.21.8	35 sqmm Long Barrel	Each	8		
AV	7.22.A	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc. GI Wire				
1	7.22.A.2	10 SWG	Mtr	10		
A W	7.23	Chemical earthing for grounding. Conduits, IC cut outs & other equipments backfill compound which is non-corrosive, thermally conductive, potential to permissible limits, superior Fault conduction capacity, non-toxic, weather resistance & capable of achieving ohmic value less than one ohm				
1	7.23.2	Using 6ft. Copper bonded rod with backfill compound	1 kit	3		
AX	9	9. FANS & AIR CONDITIONERS				
	9.2	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.				
1	9.2.1	15" Sweep (450mm)	Each	10		
	9.3.2	Supplying capacitor type ceiling fan complete with				

		down rod blades, shackle, canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system. 56" Sweep (1400mm)				
1	9.3.2.1	Regular model	Each	11		
AY	11	11. NETWORKING & TELECOMMUNICATIONS				
1	11.1	Supplying and drawing UTP-CAT 6E LAN cable.	MT.	210		
AZ	11.2	Supplying and drawing PVC flexible one pair telephone unarmoured tinned copper cable.				
1	11.2.5	5Pair	Rmt.	25		
2	11.3	Supplying and drawing PVC insulated gas injected physical foam jelly flooded co-axial TV cable.RG-6.	Rmt.	52		
BA	11.4	Supplying & Fixing of switch mounting rack with power manager & Cable manager .				
1	11.4.4	18U with 650mm depth	Each	1		
2	11.5	Supplying & Fixing of Power strip	Each	1		
3	11.6	Supplying of shelf	Each	4		
4	11.8	Supplying & Fixing of Fan	Each	1		
BB	11.9	Supplying fixing of Network Switches				
1	11.9.2	24 Port Gigabyte (manageable)	Each	2		
BC	11.10	Supplying & fixing of I/O socket with back box				
1	11.10.1	Single I/o	Each	14		
BD	11.11	Supplying & Fixing of ...Mtrs Cat6 Patch Cable				
1	11.11.1	1mtr	Each	14		
BE	11.12	Supplying & Fixing of Patch panel for LAN cabling				
1	11.12.5	24 Port 10/100/1000 patch panel	Each	2		
BF	12	12. UPS,VOLTAGE STABILIZERS,BATERIES & ACCESSORIES				
	12.2	Supplying, erecting, testing & commissioning of OFF-LINE UPS system suitable for operation on 230V, 50Hz, A/C supply, with all accessories complete and Excluding batteries and wiring complete.				
1	12.2.5	5 KVA OFF LINE UPS One Hour back up Excluding 6x 80Ah batteries	Each	1		
BG	12.4	Supplying, installation, testing & commissioning of 12V DC, AH batteries in poly propylene container for U.P.S. Low maintenance Tubular batteries.				
1	12.4.1	12 V ,40 AH capacity Acid Battery	Each	6		
BH	15.2	Conference mic's :Table top Models				
1	15.2.1	Supply, installation, testing and commissioning of Table top model chairman unit with gooseneck mic with ring LED and interconnection cable and out sockets for linking next unit with talk and priority switch aluminium/PVC housing and headphone sock	No	1		
2	15.2.2	Supply, installation, testing and commissioning of Table top model Delegate unit with gooseneck mic with ring LED and interconnection cable in and out sockets for linking next unit with talk switch aluminium/PVC housing and headphone socket.	No	2		
BI	15.3	Conference Controllers				
1		Supply, installation, testing and commissioning of	Nos	1		

	15.3.1	Controller unit with 1 mic input 1 aux PA out, Rec out, rack mountable. can handle up to 50 to 300 delegate units. With expansion options				
2	15.3.2	Supply, installation, testing and commissioning of Controller unit with 1 mic input 1 aux PA out, Rec out, rack mountable. can handle up to 60 delegate units. With expansion options.	Nos	1		
BJ	15.4	Conference Cables				
1	15.4.1	Supply, installation, testing and commissioning of, 9 core multistrand high gain low loss cable with required end connectors 10meter to connect between the delegate unit and controller including charges for labour, lead and lifts, loading and unloading	No	2		
2	15.4.2	Supply, installation, testing and commissioning of 2 core shielded multistrand high gain low loss cable with required end connectors 10meter to connect between the delegate units including charges for labour, lead and lifts, loading and unloading, cost	No	2		
3	15.5.3	Supply, installation, testing and commissioning of compact Wall mount speaker with power handling up to 40Watt RMS 0/100volt@ 1456 ohms single channel. selectable taping Specs: Power handling : 15 to 30 watt Frequency response : 80 Hz to 18khz Spl.:	No	12		
BK	15.6	Amplifiers				
1	15.6.1	Supply, installation, testing and commissioning of booster amplifier with power handling of 250 to 300 watt RMS 4ohms Dual and 100/70 volt output on bridge mode single channel Rack mountable Specs: frequency response : 20 htz to 20khtz	No	1		
2	15.6.2	Supply, installation, testing and commissioning of Mixing amplifier with 4 - 6 mic/ 2 aux in with PA/REC out Single/Dual Channel power handling of 60 to 120 watt RMS 4 ohms and 100/70 volt output on bridge mode single channel Rack mountable.	No	1		
BL	15.17	Audio Mixers				
1	15.7.1	Supply, installation, testing and commissioning of 4 to 6 Channel 4 mic/line input mixer with 2/3 band semi parametric eq 2 bus and 2 aux 2 stereo return.	No	1		
B M	15.8	Signal Processors				
1	15.8.1	Supply, installation, testing and commissioning of dual channel feedback controller with 12 band automatic filters per channel 42 bit conversion multi band manually selectable parametric equalizer dual channel.	No	1		
BN	15.9	Wireless microphones				
1	15.9.1	Supply, installation, testing and commissioning of cardioids handheld/collar VHF/UHF wireless microphone Transmitter and receiver with selectable carrier Frequency from VHF/UHF 179-279 MHz 575 MHz to 875 MHz	No	1		
2	15.10	System Racks Supply, installation, testing and commissioning of 19" 20/15U 580 Depth system rack	No	1		

		with Front glass door , back door with heavy duty wheels with cable manager and power strip and termination plates for signal and speaker out system.				
3	15.11	Speaker Cables Supply, installation, testing and commissioning professional grade 2.5 sq mm TIN coated low loss 2 core multi strand Oxidation Free speaker cable including, lead and lifts, loading and unloading, cost of conveyance for all the materials with the accessories.	meter	240		
4	15.12	Connectors and I/C Cables Supply, installation, testing and commissioning of professional grade audio connectors for inter connection cables with in the rack and other units as well auditorium as required including charges for labour, lead and lifts, loading and unloading, cost of conveyance for all the materials with the accessories required for completion as per the detailed specifications. Neutrick/SR/Amphenol/nT/MX/Equivalent.	Set	24		
BO	17	17. FIXING CHARGES				
	17.10	Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.				
1	17.1.1	Using 25mm dia G .I .pipe	Each	6		
BP	17.7	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0.0076” twin twisted PVC insulated wires, required Nos of round blocks and clamps.				
1	17.7.3	Using 1 Mtr long 19mm 18 SWG enamelled brazed conduit of two nos. rod pendent with ball socket with check nuts all nickel plated	Each	15		
2	17.8	Fixing a ceiling / Wall mounting fan of all capacities and all types to the existing 'S' hook with fan regulator to the existing board together with supplying and fixing 5 amps. ceiling rose, necessary length of 23 / 0.0076 inch PVC insulated twin twisted copper wire and wiring.	Each	11		
3	17.10	Extra length of GI pipe of class B 19mm dia for down rod.	Mtr.	11		
4	17.11	Fixing one exhaust fan after making a suitable nitch in the wall and finishing with cement mortar and colouring to match the existing wall or brackets, with bolts and nuts and a 5 amps, ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire of approved make with wire mesh and wooden frame.	Each	4		
5	17.14	Erection of single phase preventer / ammeters / including fixing selector switch / voltmeter / current operated earth leakage circuit breakers / voltage	Each	1		

		operated circuit breaker / above 100A fuse channel set (3 Nos) HRC fuses above 100A (3 Nos.) / Digital ammeter/digital volt meter/set of 3 indicating lamps /MCB / Relays /A-V selector switches including wiring using suitable capacity wires, bolts, nuts, screws.				
Total						
GST/Taxes as applicable						
Total with GST (A)						
ESTIMATE FOR LV ELECTRICIFICATION FOR PROPOSED AUDITORIUM AT IIT DHARWAD						
Sl. No.	Item code	Particulars/Description	Unit	Qty.	Unit Rate	Amount
		FIRE ALARM WORKS				
A	1.1.0	Supply, Store, Erection, Testing and Commissioning of Addressable Type Fire Alarm system.				
	1.1.1	Intelligent Fire Alarm Control panel 1 loop with 15 min. battery backup in alarm condition. Each loop shall have the capability to handle 99 detectors & 99 devices. The panel shall have graphic display software card to display graphics in customers monitor.				
1		Supply	Nos.	1		
2		Erection & Commissioning	Nos.	1		
B	1.1.2	Intelligent photo electric detectors with detector base (above false ceiling)				
1		Supply	Nos.	4		
2		Erection & Commissioning	Nos.	10		
C	1.1.3	Intelligent photo electric detectors with detector base (below false ceiling)				
1		Supply	Nos.	10		
2		Erection & Commissioning	Nos.	10		
D	1.1.5	Intelligent heat detector with detector base (Rate of rise)				
1		Supply	Nos.	1		
2		Erection & Commissioning	Nos.	1		
E	1.1.6	Duct smoke detectors with sampling tube				
1		Supply	Nos.	2		
2		Erection & Commissioning	Nos.	2		
F	1.1.7	Addressable manual call point (Break glass)				
1		Supply	Nos.	3		
2		Erection & Commissioning	Nos.	3		
G	1.1.8	Electronic inline hooter / strobe 110 dB				
1		Supply	Nos.	3		
2		Erection & Commissioning	Nos.	3		
H	1.1.9	Addressable control module for shutting down AHU's, Access control and public address system, etc..				
1		Supply	Nos.	1		
2		Erection & Commissioning	Nos.	1		
I	1.1.10	Fault Isolation module.				

1		Supply	Nos.	1		
2		Erection & Commissioning	Nos.	1		
J	1.1.11	Response indicator for above / below false ceiling detectors / cabins				
1		Supply	Nos.	14		
2		Erection & Commissioning	Nos.	10		
K	1.1.12	FRLS PVC insulated 2 C x 1.5 sq. mm Cu. armoured cable				
1		Supply	Mtrs.	250		
2		Erection	Mtrs.	250		
L		CCTV SYSTEM				
	11.11	Supplying & Fixing of ...Mtrs Cat6 Patch Cable				
1	11.11.1	1mtr	Each	70.00		
2	11.9.10	16 port 10/100/1000 Switch	Each	1.00		
3	MR	S.I.T.C. of 10Mtr. CCTV Camera IP addressable	Each	7		
	1.12.8	Supply & erecting FR grad, PVC arround multicore optical fibre cable with 6 fibres, with core dia 50/125 um (OM3) suitable for 1 GBPS ethernet distance at 850 nm of wave length, on wall/ceiling or laid in provided pipe/trench as per specification	meter	220		
Total for LV						
GST/Taxes as applicable						
Total for LV with GST (B)						
Grand Total (A+B)						

Declaration: I/We do hereby accept all the terms and conditions laid down in the tender document for the above said work/supply. I/We also agree to the condition that the right to suspend the tender process or part of the process, to accept or reject any or all the tenders at any stage of the process and/or to modify the process or any part thereof at any time without assigning any reasons thereto is reserved by the Competent authority of the Institute without any obligation or liability whatsoever.

Signature of the Bidder/Manufacturer with date and seal