



राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, भुवनेश्वर
(परमाणु उर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान)
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, BHUBANESWAR
(AN AUTONOMOUS INSTITUTE UNDER DEPT. OF ATOMIC ENERGY, GOVT. OF INDIA)

Name of Work: - “Provision for Additional PowerPoint, Light Fan, AC point, LAN and telephone point fixing with UPS wiring and cabling in the proposed CDL Lab near Work shop.”

Notice Inviting E-Tender No. - NISER/IWD-ELE/CDL/2021-22/11

Dated: 10.09.2021.

Estimated Cost of Tender: - Rs.5, 40,917.00

Earnest Money : - Rs.10, 818.00

Completion Time: - 60 days

Last date of submission of E- tender : 27.09.2021 up to 04.00 PM
Opening of Technical Bid : 28.09.2021 at 4.30 PM

This tender documents contains 16 (Sixteen) pages.

By Sam D2



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TENDER DOCUMENTS

Notice Inviting E-Tender No. - NISER/IWD-ELE/CDL/2021-22/11, Dated: 10.09.2021

Name of work: “Provision for Additional PowerPoint, Light Fan, AC point, LAN and telephone point fixing with UPS wiring and cabling in the proposed CDL Lab near Work shop.”

I N D E X

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06	C.P.W.D. Specifications 2018 of Electrical work	Available in the office of the SO-D Electrical) of NISER, Jatni. (If required, the same can be made available on written request addressed to the SO-D (Elect.) NISER	

NOTE: Tender can be downloaded and bided from website address: <https://eprocure.gov.in/eprocure/app>. Tender documents for viewing only are also available in NISER web-site address: www.niser.ac.in

P. Jayasankar



NAME OF THE WORK

“Provision for Additional PowerPoint, Light Fan, AC point, LAN and telephone point fixing with UPS wiring and cabling in the proposed CDL Lab near Work shop.”

NOTE:-

The tenderer should attach following documents in online e-tender otherwise tender will be summarily rejected.

- 1) a) Self attested copy of completed works certificate, during the last five years from Govt./Semi Govt. organization not below the rank of E.E as per NIT.
b) Self attested copy of valid GST Registration Certificate.
c) Self attested copy of PAN card.
d) Self attested copy of ELBO License.
f) The EMD amount in D.D's as per NIT.
- 2) Contractors shall enclose the above documents when submitting bid. Any conditional/ changed or altered bids are liable for rejection.
- 3) Incomplete/Partial bid or bid not submitted in prescribed format will be rejected. Documents not submitted/received within stipulated date/time as per NIT will not be accepted.

B. Pan



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NOTICE INVITING TENDER

NIT No. NISER/IWD-ELE/CDL/2021-22/11 Date: 10.09.2021

Director, NISER invites E- tender in Two bid system (Technical Bid and Financial Bid) for the following work:-

Name of the work: "Provision for Additional PowerPoint, Light Fan, AC point, LAN and telephone point fixing with UPS wiring and cabling in the proposed CDL Lab near Work shop."

Estimated Cost	:	Rs. 5, 40,917.00.00/-
Earnest Money	:	Rs. 10,818.00/-
Period of Completion	:	60 (Sixty Days).
Last date of submission of E- tender	:	27.09.2021 up to 04.00 PM
Opening of Technical Bid	:	28.09.2021 at 4.30 PM

Tender can be downloaded and bided from website address: <https://eprocure.gov.in/eprocure/app>.
Tender documents for viewing only are also available in NISER website address: www.niser.ac.in

B. Pan

T. S. Das

Faculty in Charge
(EMW NISER)

Instruction for Online Bid Submission:-

NOTE:

1. The details of tender notification can be downloaded from <https://eprocure.gov.in/eprocure/app> or Tender Free View Link from NISER Website <https://www.niser.ac.in/content/tender>.
2. Vendors should obtain the USER ID and PASSWORD from **CPP Portal** by clicking on "<https://eprocure.gov.in/eprocure/app>" link in the homepage.
3. For further details on e-Tender participation, please contact Help desk as mentioned below:-
 - Telephone: **0120-4200 462/ 0120-4001 002/ 0120-4001 005/ 0120-6277 787**
 - Email: support-eproc@nic.in
4. Tenders should be submitted only through **CPP portal** and obtain the Tender Acknowledgement copy as a proof of successful submission.
5. Tender documents for viewing only are also available in NISER web-site address: www.niser.ac.in.
6. All corrigendum and addendum will be published on NISER website and CPP Portal.
7. NISER is publishing all its public and limited tender on NISER website.

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid **Digital Signature Certificates**. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.



REGISTRATION

Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead for misuse. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

Bidder should take into account any corrigendum published on the tender document before submitting their bids. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid: Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.





Tender Notice

Director of NISER hereby invites E- tender in Two bid (Technical Bid and Financial Bid) for the following work from **registered electrical contractors** of CPWD, MES, Railways and State PWDs and/or those who have worked for DAE or its Organizations or Govt. /Semi Government organizations and **having a valid ELBO License, register in EPFO** (comply with labour Act.) and have successfully carried out a minimum of **one/two/three similar works**(Building or Lab. Wiring/ LAN Points) of 80%/60%/40% respectively of the estimated cost or above, as indicated in the prescribed format of the E-Tender portal in last five years. The eligible contractors may submit their bid along with supporting documents of fulfilling the above conditions otherwise the bid bear the risk of not being considered.

Name of Work	Estimated Cost ₹	Earnest Money ₹	Duration of work
Name of the work: -Provision for Additional PowerPoint, Light Fan, AC point, LAN and telephone point fixing with UPS wiring and cabling in the proposed CDL Lab near Work shop. NIT:- NISER/IWD-ELE/CDL/2021-22/11 Dt. 10.09.2021	5, 40,917.00/-	10,818.00	60 (Sixty Days).

The Bidders are requested to give detailed tender in E-Tender portal in the prescribed forms in two Bids i.e. Part – I Technical Bid and Part - II Financial Bid.

Tender process & award of contract.

The technical bid will be evaluated to shortlist the eligible bidders. The financial bid of only the shortlisted bidders shall be considered for further processing. Bidders whose technical offer is found acceptable and meeting the eligibility requirements as specified in this tender, will be informed about the date and time of the opening of the financial bid. NISER will open financial bids of only the technically qualified bidders. The Date and Time of opening the financial Bid will be intimated only to technically acceptable Bidders for the work at a later date or to be uploaded in NISER web site.

The earnest money deposit (Refundable) as indicated against the work should be send **by post or by hand** to “SO(E)-ELECTRICAL,INSTITUTE WORKS DEPARTMENT, NISER, Jatni Campus, PO-Bhimpur-Padanpur,Via-Jatni,District- Khurda, PIN- 752050” and to be reached on or before the opening of the technical bid for e-tender system, in the form of **Account Payee Bank Draft or TDR**, payable on any branch of Nationalized/Schedule Bank at Bhubaneswar/ Jatni in favour of **Director, NISER payable at Bhubaneswar/Jatni** in a sealed envelope. Postal delayed will not be attributed to NISER. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bid shall not be opened. No interest is payable on EMD. Director of NISER, reserves the right to accept/reject any/all tenders without assigning any reason whatsoever. Part or incomplete tenders will be summarily rejected. No further correspondences whatsoever shall be entertained in this regard. Canvassing in any manner shall result in rejection of the tender.

Any dispute arising out of this shall subject to Bhubaneswar jurisdiction only.

Faculty in Charge
(EMW NISER)

General Terms and Conditions:-

1. Director of NISER hereby invites e-Tender in Two bid system (Technical Bid and Financial Bid) for the following work from **registered electrical contractors** of CPWD, MES, Railways and State PWDs and/or those who have worked for DAE or its Organizations or Govt. /Semi Government organizations and **having a valid ELBO License, register in EPFO** (comply with labour Act.) and have successfully carried out a minimum of one/two/three similar works (Building or Lab. Wiring/ LAN Points) of 80%/60%/40% respectively of the estimated cost or above, as indicated in the prescribed format of the e-Tender portal in the last five years.

In support of fulfilling all the essential conditions mentioned in the previous Para the contractor shall submit the details through e-Tender in the prescribed format the past details, mentioning the name of work, estimated cost,, date of commencement as per agreement & actual date of completion as per agreement along with schedule of quantities executed and any penalty levied due to delay in executing the work from an officer not below the rank of Executive Engineer (Electrical).

The contractor having electrical contractor License issued by licensing board of other state will be allowed to take up the work in the state of Odisha through endorsement of electrical license (other than Odisha) by ELBO, Odisha.

2. The estimated cost of the work is **₹ 5, 40,917.00/- (Rupees Five Lakhs Forty thousand Nine hundred and seventeen only.)** (As per DSR- 2018).
3. Period for completion of the work will be **60 (Sixty Days)** and the date of commencement shall be reckoned from the tenth day of issue of award letter.
4. The earnest money deposit and the cost of tender (Refundable) as indicated against the work should be send by **post or by hand** to **“SO(E)-ELECTRICAL,INSTITUTE WORKS DEPARTMENT, NISER,Jatni Campus, PO-Bhimpur-Padanpur,Via-Jatni,District- Khurda, PIN- 752050”**so that it reaches on or before the opening of the technical bid for e-tender system in the form of Account Payee **Bank Draft or TDR** payable on any branch of Nationalized/Schedule Bank at Bhubaneswar/ Jatni in favour of **“Director, NISER payable at Bhubaneswar/Jatni”** in a sealed envelope. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bid shall not be opened. No interest is payable on EMD. The EMD will be returned to the bidders(s)/Agents whose offer is not accepted by NISER within one month from the date of the placing of the final order(s) on the selected bidder(s). In case of the bidder(s) whose offer is accepted the EMD will be returned on submission of Performance Bank Guarantee (if applicable). However, if the return of EMD is delayed for any reason, no interest /penalty shall be payable to the bidders.
5. The details of tender notification can be download from <https://www.niser.ac.in/content/tender> under **"Tender Free View"** link. Vendors should obtain the USER ID and PASSWORD from **CPP Portal** by clicking on [“https://eprocure.gov.in/eprocure/app”](https://eprocure.gov.in/eprocure/app) link in the homepage. Tenders should be submitted only through **CPP portal** and obtain the Tender Acknowledgement copy as a proof of successful submission.
6. The Bidders are requested to give detailed tender in **CPP portal** in the prescribed forms in Two Bid (Technical Bid and Financial Bid).
7. Last date of submission of E- tender : **27.09.2021 up to 04.00 PM.**
Opening of Technical Bid : **28.09.2021 at 4.30 PM**

By far

8. Tender process & award of contract.

The technical bid will be evaluated to shortlist the eligible bidders. The financial bid of only the short listed bidders shall be considered for further processing. Bidders whose technical offer is found acceptable and meeting the eligibility requirements as specified in this tender will be eligible for the financial bid evaluation.

9. Director of NISER does not bind himself to accept the lowest or any tender and reserves the right to accept the tender either in whole or in part. Director of NISER, reserves the right to accept/reject any/all tenders without assigning any reason whatsoever. The decision of the Director shall be final in this regard.
10. Canvassing in any manner or form will lead to rejection of the Bid.
11. The tenderer shall not be permitted to bid for works in any unit of DAE where any of his/her relatives are employed. He shall also intimate the names of any such persons who are working with him in any capacity or subsequently employed by him and whose relatives are working in DAE or its units.
12. Contact for Technical information: (Only E-mail enquiries will be entertained)

Mr. Bhagaban Dhal
SA_D (Electrical),
Institute Works Department, NISER.
E-Mail – bhagaban87@niser.ac.in

NOTE:-

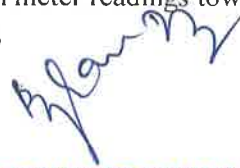
A person shall be deemed to be a relative of another if, (a) they are members of a Hindu undivided family; or (b) they are husband and wife; or (c) the one is related to the other in the following manner : Father, Mother (including step mother), Son (including step son), Son's wife, Daughter (including step daughter), Father's father, Son's son, Son's wife, Son's daughter, Son's daughter's husband, Daughter's husband, Daughter's son, Daughter's son's wife, Daughter's daughter, Daughter's husband, Brother (including step brother), Brother's wife, Sister (including step sister), Sister's husband.

A person shall be deemed to be a relative of another if, (a) they are members of a Hindu undivided family; or (b) they are husband and wife; or (c) the one is related to the other in the following manner : Father, Mother (including step mother), Son (including step son), Son's wife, Daughter (including step daughter), Father's father, Son's son, Son's wife, Son's daughter, Son's daughter's husband, Daughter's husband, Daughter's son, Daughter's son's wife, Daughter's daughter, Daughter's husband, Brother (including step brother), Brother's wife, Sister (including step sister), Sister's husband.

13. The Bid shall remain valid for a minimum period of 90 days from the date of opening of the tender for the purpose of acceptance and award of work. Validity beyond 90 days from the date of opening shall be by mutual consent.



14. The tenderer should see and obtain the drawings. In case of any queries, necessary clarifications may please be sought from the office of the Scientific Officer-D (Electrical). No claim whatsoever will be entertained in this regard for any alleged ignorance, thereof.
15. Before tendering, the tenderer shall inspect the site to fully acquaint himself about the condition in regard to accessibility to site, nature and extent of ground, working condition of site and locality including stacking of materials, conditions affecting accommodations and movement of labour, etc., which are required for satisfactory execution of the work. No ignorance of the same, whatsoever shall be entertained under any circumstances.
16. EMD is liable to be forfeited if the contractor fails to commence the work as per award letter.
17. Some of the provisions of the contract are given below.
 - a). DEFECT LIABILITY PERIOD - Twelve months from the date of completion as certified by the authorized engineer.
 - b). MINIMUM VALUE OF WORK FOR THE INTERMEDIATE CERTIFICATE Intermediate certificate for a lesser amount can be admitted for payment at the discretion of the Institute.
 - c). SECURITY DEPOSIT - A sum @ 2.5% of the gross amount of the bill shall be deducted from each running bill of the contractor, till the sum will amount to security deposit of 2.5% of the tendered value of the work. In addition, the contractor shall be required to deposit an amount equal to 5% of the tendered value of the contract as Performance Security within the period prescribed for commencement of work in the letter of award issued to him.
 - d). COMPENSATION – In the event of any delay in completion of the work beyond the scheduled period, the contractor shall pay an amount equal to one per cent of the total cost of work or such smaller amount as decided by Director of NISER (whose decision shall be final) as compensation to the institute, for every week that the work remains un-commenced or unfinished. Compensation to be paid shall not exceed ten per cent of the estimated cost of the total work as per award letter.
18. Stores to be issued: - No material shall be issued by the Institute. The responsibility for arranging all materials from approved manufacturer as per award letter lies with the contractor.]
19. The rate quoted by the tenderer shall be inclusive of Taxes as per the Govt. rule. There will be deduction of TAX from every RA bill and also from the final bill of the contractor at the rate prescribed by govt. of India from time to time.
20. The successful bidder will be required to submit the names, qualifications and experiences of the supervising staff to be deployed for execution of the work. In case of any changes occurring during the course of execution of the said work, the same shall also be intimated by the bidder to the institute.
21. The tenderer should also submit the detail list of tools and plants/ machineries/ equipment, etc. that he proposes to place at the site of work.
22. The Contractor shall have to make his own arrangements for storage of materials required for execution of the work and NISER in any manner shall be held responsible for the storage and safe custody of the said materials at work site.
23. Electricity will be supplied to the site of work at one point only if required and Contractor can do onward distribution with metering arrangement as per the requirement. Electricity charges; if any will be recovered from the Contractor's bill based on meter readings towards its consumption.



24. Before commencement of the work, the contractor has to submit the list of tools and plants brought to the site of work. No items other than the list submitted will be allowed to be taken out from the work site.
25. All the mandatory testing charges will be borne by the contractor.
26. Cost escalation in any manner whatsoever, will not be accepted for the said work, where in the stipulated period of completion of work is 18 (eighteen) months or less.
27. The work will be executed as per CPWD guidelines and DAE works procedure under the supervision of Engineer-In-charge of NISER.

By

T. S. S. S.

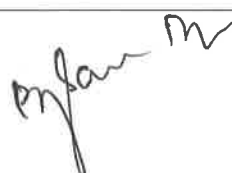
Faculty in Charge

(EMW NISER)

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SCHEDULE OF QUANTITY

1	DISTRIBUTION BOARD		
1.1	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs with MCCB incoming (but without MCBs and incomer) as required. (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door Each Make: Legrand/Hager/Schnieder	Each	1
1.2	Supply, installation and testing of 100 A, 36KA, FPMCCB, (Ics=100% Icu) in the existing MCCB VTPN DB. Make: Legrand/Hager/Schnieder	Each	1
1.3	Supplying and fixing 16A to 32 A rating, Triple pole 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Legrand/Hager/Schnieder	Nos	8
2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 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) 4wayDB 4+12 way DB Make: Legrand/Hager/Schnieder	Each	1
2.1	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. SP MCB Make: Legrand/Hager/Schnieder	Each	12
2.2	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 Amp 4 Pole RCCB Make: Legrand/Hager/Schnieder	Each	1
2.3	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 Amp 4pole MCB Isolator Make: Legrand/Hager/Schnieder	Each	1
3	Supplying and fixing 4pole double door TPN sheet steel enclosure on surface/ recess along with 63A 240 V "C" curve 4P MCB complete with connections, testing and commissioning etc. as required. Make: Legrand/Hager/Schnieder	Each	1



4	Supplying and fixing of double door TPN sheet steel enclosure on surface/ recess along with 40/32 A 415 V "C" curve TPN MCB complete with connections, testing and commissioning etc. as required. Make: Legrand/Hager/Schnieder	Set	8
5	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required along with fixing of 6/16A 6pin socket outlet and 15/16 A Modular switch including installation, fixing of switch and socket and connection 6 Module box and 2nos. of Switch and 2 nos. of socket each Make: Legrand (Myrius/Myline)	Each	15
6	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required along with fixing of 3nos. of 5/6 amp Modular switch for LED Lights 3 Module (100mmX75mm) Make: Legrand (Myrius/Myline)	Each	2
7	Supply and fixing of high speed 1200 MM sweep opal white color, ceiling mounted Fan. Make: Havells/Almonard/Bajaj	Each	2
8	Cable and Wiring		
8.1	Cable laying for AC DB incoming Supply, Laying and fixing 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 and refilling the trench etc as required. 3.5Cx35 Sq MM AL Armoured XLPE Cable Make: Polycab/CCI/RR Kabel	Mtr	200
8.2	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3.5Cx35 SQmm Cable	Each	4
9.0	Cable laying for AC DB incoming Supply, Laying and fixing 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 and refilling the trench etc as required. 4Cx25 Sq MM AL Armoured XLPE Cable Make: Polycab/CCI/RR Kabel	Mtr	200
9.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3.5Cx25 SQmm Cable	Each	4
10	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 16 sq. mm + 2 X 6 sq. mm earth wire Make: Polycab/Universal/RR/Finolex	Metre	20

11	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. (AC's wiring and Sub-main ckt wiring for Fan Light) Cable: 4 X 6 sq. mm + 2 X 6 sq. mm earth wire Make: Polycab/Universal/RR/Finolex	Mtr	100
12	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. (AC's wiring and Sub-main ckt wiring for Fan Light) Cable: 2 X 4 sq. mm + 1 X 4 sq. mm earth wire Make: Polycab/Universal/RR/Finolex	Mtr	175
13	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. (Light Fan and Power point Wiring) Cable: 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire Make: Polycab/Universal/RR/Finolex	Mtr	150
14	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required. (Light Fan and Power point Wiring) Cable: 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire Make: Polycab/Universal/RR/Finolex	Mtr	100
15	LAN Point and Telephone Point Wiring		
15.1	Supply and fixing of CAT6 Face Plate with RJ45 UTP Jack: Should be 2-port flush mounted, square faceplate, High-impact, flame retardant, UL-rated 94 V-0, thermoplastic, UL 94 V-0 with all accessories for fixing on existing race way. Supply and fixing of RJ-45 CAT-6 UTP Jack: Electrical performance guaranteed to meet or exceed latest TIA/EIA 568 Category 6 and ISO/IEC Category 6/Class E specifications, Minimum 750 mating cycle. 200 termination cycle, 100 M Ohm, 1.5 A @ 20 °C, 1500 VAC @ 60 Hz, 500 M Ohm, UL listed(UL 94 V-0) Conductor Gauge- 22-26 AWG and ROHS Compliant 2 nos. in each face plate Make: Legrand/Systemey/Panduit	Set	4
15.2	Supply and fixing of Cat-6 UTP Cable for Lan point Unshielded Twisted Pair, Category 6, TIA / EIA 568 C.2 & ISO/IEC 11801 2nd edition, Conductors- 23 AWG Solid bare copper, Insulation- Polyethylene or Polyolefin Jacket- LSZH jacket must complying to: Fire rating-IEC60332-3-22, Acid gas- IEC 60754-2 Smoke density- IEC 61034-2, Minimum 250 MHz; ETL report for 4 connector channel performance up to 250 MHz to be provided. Impedance-100 Ohms + / - 15 ohms, Mutual Capacitance- 5.6 NF MAX /100 Meter, Bend Radius- 4 * Cable Diameter DC Resistance- unbalance 5% Max. with ROHS/ELV Compliant Make: Legrand/Systimax/Panduit	Mtr	400



15.3	SITC of 24 port loaded Patch Panel (Panel : SPCC. 1.5mm thickness with Black (RAL9005) color painted RJ-45 Jack : Housing ABS, UL94-0 RJ-45 Jack Contact : Material Phospor Bronze with Nickel Palated) Make: Legrand/Systimax/Panduit	Each	1
15.4	Supply, installation of 19" Wall mounted 9 U, 600x600mm rack with acrylic glass door with following accessories : a) Four fan position tray with 4 fans (230 V AC) - 1 no b) AC power panel with minimum 6 nos. 6/16 A socket, fuse and 6 switches - 1 panel. Make: Legrand/Systemey/Panduit	Set	1
15.5	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess with Telephone RJ11 socket outlet etc. as required. 1 or 2 module GI box and cover plate with face plate with telephone socket out let. Make: Legrand	Each	2
16	Dedicated Earthing		
16.1	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke, soft soil and salt as required.	Each	2
16.2	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Mtr	20
16.3	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut holt & spring washer spaced at 50mm)	Mtr	40
16.4	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	Mtr	1

Agan Dm

Tutrick DS

Faculty in Charge

(EMW NISER)

DS

Technical Specifications

1. Makes and Model no. to be mentioned in the technical bid and to be attached along with the bid. Also the make and model no. to be approved by EIC before delivery of material.
2. Work should be carried out as per CPWD electrical specification.
3. **Circuit wiring:** - Phase, Neutral & Earth wire shall be connected up to Switch Box.
4. In wiring, no joints in wiring will be permitted anywhere, except in switch box or point outlets, where jointing of wires will be allowed with use of suitable connector.
5. **2.5 sq mm for points & circuit wiring, 4 sq. mm for power plug point wiring, 6 sq mm & above size for Sub-main wiring, i.e. Panel to DB etc. as per site plan/project requirement as directed by Engineer-in-charge.**
6. Drawing of PVC insulated copper conductor cable should not be excess from maximum capacity of conduit, as per clause [4.2.1 (ii)]
7. MCB DBs pre-wired type & brand name/make as specified in the tender only.
8. Only quality materials of reputed make as specified in the tender will be used in work.
9. After installation of all equipments labeling or nomenclature to be done by the contractor.
10. The contractor shall engage suitably skilled/licensed workmen of various categories for execution of work & **supervised by supervisors / Engineer of appropriate qualification** & experience to ensure proper execution of work. They will carry out instructions of Engineer-in-charge & other senior officers of the Institute during progress of work.

MEASUREMENT AND RA/ FINAL BILL

1. The contractor shall submit his running and final bills with detail measurement for the purpose of payment & bills shall be processed by the various offices for payment, as per existing procedure. He has to sign the Computerized MB Book as an acceptance to the measurements carried out by the engineer in charge of NISER, based on which the RA/Final Bill shall be generated for payment. Running bill will be paid on the basis of request received from the contractor and as per the actual work done, checked and approved by EIC of NISER.
2. The contractor shall extend all possible co-operations for checking the measurement. Decision of the engineer in charge (electrical) of NISER shall prevail. In case of any dispute, the final decision lies with the Director of NISER, which shall be binding on both the parties.

OTHERS

If, the contractor has to remove/dismantle any old, damaged wiring & fixtures etc. for the purpose of execution of the said work, the same shall be deposited with NISER Stock Yard along with the list of materials under intimate to the concerned Engineer in- Charge. No extra payment will be made by the institute for this purpose.

