



**ESTATE MAINTENANCE DEPARTMENT / ELECTRICAL
NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI-15,
TAMIL NADU, GOVT OF INDIA (Deemed University)**

www.nitt.edu Phone:0431-2503835/36/39/40 Fax: 91-431-2500133 Email: emc@nitt.edu.



TENDER NOTIFICATION

Ref No: NITT/COW/EMD/EE (E)/AE (P&D)/Enq.No:12-16/15-16.

Date:12.06.2015

The Chief of works, Estate Maintenance Department , NIT,Trichirappalli- 620 015 invites on behalf of The Director, NIT,Trichirappalli-620 015.Sealed item rate tenders from the approved and eligible contractors of NITT/CPWD and those in the appropriate list of Tamilnadu state PWD, Railways, MES and BSNL for the following work. Sealed tenders will be received by the **Registrar, National Institute of Technology** at his Office at National Institute of technology, Tiruchirappalli-15 up to **3.00 p.m on 24.06.2015.**

Details

Enq No	Name of works & Location	Period of Completion from the dt of receiving WO in days	Estimate cost put to tender (Rs)	Earnest Money (Rs)	Tender cost (Rs)	Last date and time of submission of Tender	Time and date of opening of Tender
12	Manufacturing, Supplying, installation, testing and commissioning of Indoor cubicle flush type floor mounted 1000A MV panel in Main power house to feed power supply to various depts.	60	699713	13994	525	At 3.00 PM on 24.06.2015	At 3.30 PM on 24.06.2015
13	Providing electrical wiring in the additional lab space of Electronics Devices and circuits lab at room No: 107 & 108 OF SJB ground floor in ECE dept.	60	699975	14000	525	At 3.00 PM on 24.06.2015	At 3.30 PM on 24.06.2015
14	Renovation of electrical works in faculty rooms at SJB building ground floor in ECE dept.	60	699204	13984	525	At 3.00 PM on 24.06.2015	At 3.30 PM on 24.06.2015
15	Modification of Single & three phase DBs, Switch boards and light fixtures with suitable wiring connections in faculty rooms at SJB building First floor in ECE dept.	60	699653	13993	525	At 3.00 PM on 24.06.2015	At 3.30 PM on 24.06.2015
16	Providing new LED street lights from Opal to temple street road and opposite to power house road.	45	499497	9990	525	At 3.00 PM on 24.06.2015	At 3.30 PM on 24.06.2015

The tender should accompany, Earnest Money Deposit and Tender cost as detailed above through two different Demand Drafts payable at Tiruchirappalli, Drawn in favor of **The Director, National Institute of Technology, Trichy-15**. This earnest money will be refunded to the unsuccessful tenderer or rejection of the tender or at the expiry of two months from date of tender, whichever is earlier. The earnest money will be retained in the case of the successful tenderer and will not carry any interest. Tender must be submitted in sealed covers and should be addressed to The Director, National Institute of Technology, Trichirappalli-15 and the name of the tenderer, name of the work and Ref .No. being noted on the cover. **The rates should be quoted inclusive of all taxes and duties. Submission of tender without EMD is liable to be rejected.**

**-sd-
Chief of Works**

SCHEDULE OF WORK

State Tamilnadu
Branch Electrical

Division EMD
Sub-Division EMC

Name of Work : Manufacturing, Supplying, installation, testing and commissioning of Indoor cubicle flush type floor mounted 1000 A MV panel in Main power house to feed power supply to various depts.

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	EARTHING					
1.1	Supplying and laying 25 mm X 5 mm copper 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 overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	4.00	Metre			
1.2	Supplying and fixing cosmos earthig electrode systems.					
1.2.1	COSMOS ROMA 40mm DIA 2 Mtrs LENGTH WITH MOISTURE ENHANCER 25 Kg.	1.00	each			
	Sub-Total					
2	CUBICLE BOARDS (MARKET ITEM)					
2.1	Manufacturing, Supplying, installation, testing and commissioning of Indoor cubicle flush type floor mounted compartmentalized main power cum control panel made out of not less than 2.2 mm thick MS sheet connection inter-connection etc. as per CPWD specifications (Part IV & V).Providing and fixing following switch gears with cable entry boxes for both incoming and outgoing cables termination, glands, interconnection, connections powder coated painting, earthings ,replacement of old panels by new panels, and including of all erection, Labelling of incoming and outgoing feeders, cable trench formation works, removing termination in old panel & transport charges etc., as required. The panel drawing should be submitted before execution of the works. (Make: L&T/Legrand)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
2.1.1	Essential supply Panel size 2100 mm x3650 mm x (1000mm for ACB/450mm for MCCB) mm deep (Nominal), a) 4 strip copper bus bars suitable for 1000 A capacity ,b) Incomer 1000A U POWER OMEGA ACB 50kA EDO 4P WITH MICROPROCESSOR BASED 3.5MTX RELEASE WITH UV RELEASE AND OPERATION COUNDER UW110NFD12300 with ON,OFF,Trip indications. -each 1No,C) One additional dummy separate compartment should be provided for 800A rating ACB bus coupler, c)Outgoings MCCB 400A,4P,36KA(CM930030000X1)MP based four pole with panel mounting type - 3 Nos , d) Outgoings M C C B 200A,4P,36KA(CM921090ON10G)thermal magnetic four pole with panel mounting type-3Nos, e)400A MCCB Dummy compartment-4nos, f)Intelligent panel meter flush mount 96X96 mm 3ph 4w IBM 240V (L-N)5A Class-0.5 FM with RS 485 -Quasar-1No,g)3ph Voltmeter class 1 (WDS301FEV00)-1No,h)3ph Ammeter class 1 (WDS301FCA00)-1No,i) CT'S-3Nos,j) 5A Back lite fuses-3Nos,k) R,Y,B indicators-each 1,l)Toggle switch-3Nos.m)Trench formation,erection of new panel,termination,transport charges etc as required.	1.00	each			
	Sub-Total					
	Total					

AE(P&D)

SCHEDULE OF WORK

State Tamilnadu

Branch Electrical

Division EMD

Sub-Division EMC

Name of Work : Providing electrical wiring in the additional lab space of Electronics Devices and circuits lab at room No: 107 & 108 OF SJB ground floor in ECE dept.

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	WIRING					
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
1.1.1	Group C	38.00	Point			
1.2	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					
1.2.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	15.00	Metre			
1.2.2	Labour charges for laying copper wire in pvc pipe	75.00	Metre			
1.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
1.3.1	5/6 amps switch	2.00	Each			
1.3.2	3 pin 5/6 amp socket outlet	2.00	Each			
1.3.3	Supplying and fixing stepped Modular socket type electronic fan regulator on the existing switch box including connections but excluding modular plate etc. as required.	18.00	Each			
1.4	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
1.4.1	1 or 2 Module (75mmX75mm)	2.00	Each			
1.4.2	Metal surface box - 12/16 module (Legrand)	4.00	each			
1.5	DLP plasticTrunking wiring (But the rate without wires) (Make: Legrand/Siemens)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1.5.1	DLP Pastic Trunking 105x50mm and accessories Flexible cover 40mm width-1No, Flexible cover 85mm -1No, Joints for cover 40 mm width-1No, Joints for cover 85mm width-1No, Basejoint-25Nos, Clips-15Nos, Separation partition-1No, Endcap-1No, Internal angles-adjustable from 80 degr - 120 deg - 1No, VDI accessories for internal angles-1No, VDI accessories for external angles -1No, Flat angles -1No, VDI accessories for flat angles-1No, Flat junctions-1No, Flat junctions for specific size-tap off to an 80mm wide branch -1No, VDI accessories for junctions -1No, Wall crossing -1No, Capacity change -1No, Capacity change-1No, partition junction -1No, Cable ties base -1No. (Make: Legrand)	95.00	metre			
1.6	DLP Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed (The rate without DLP Pastic Trunking) as required.(Make: Finolex)					
1.6.1	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	375.00	metre			
1.6.2	2 X 6.0 sq. mm + 1 X 6.0 sq. mm earth wire	80.00	metre			
1.6.3	2 X 10.0 sq. mm + 1 X 10.0 sq. mm earth wire	20.00	metre			
1.6.4	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	50.00	metre			
1.7	"Supplying of following size ISI marked Module Arteor frame for fixing swiches or sockets in DLP plastic trunking wiring of 1.1 KV grade as required. "					
1.7.1	4 Module Arteor frame for 85 mm cover	9.00	each			
1.7.2	6 Module Arteor frame for 85 mm cover	18.00	each			
1.8	Supply and fixing following Arteor switch/socket on the existing arteor frame & switch box including connections but excluding modular plate etc as required.					
1.8.1	5/6 amps switch	38.00	Each			
1.8.2	15/16 amps switch	9.00	Each			
1.8.3	3 Pin 5/6 amp socket outlet	38.00	Each			
1.8.4	6 Pin 15/16 amp socket outlet.	9.00	Each			

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
	Sub-Total					
2	EARTHING					
2.1	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	60.00	Metre			
2.2	Supplying and laying 25 mm X 5 mm copper 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 overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	1.00	Metre			
2.3	Supplying and fixing cosmos earthing electrode systems.					
2.3.1	COSMOS ROMA 40mm DIA 2 Mtrs LENGTH WITH MOISTURE ENHANCER 25 Kg.	3.00	each			
	Sub-Total					
3	MV CABLE LAYING					
3.1	Laying 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 as required.					
3.1.1	Upto 35 sq. mm	225.00	Metre			
	Sub-Total					
4	MV CABLE JOINTING & END TERMINATION					
4.1	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.					
4.1.1	3½ X 25 sq. mm (28mm)	2.00	Each			
4.1.2	3½ X 35 sq. mm (32mm)	2.00	Each			
4.1.3	3½ X 50 sq. mm (35mm)	6.00	Each			
4.1.4	3½ X 70 sq. mm (38mm)	1.00	Each			
4.1.5	3½ X 120 sq. mm (45mm)	1.00	Each			
4.1.6	3½ X 150 sq. mm (50mm)	1.00	Each			

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
4.1.7	3½ X 185 sq. mm (57mm)	1.00	Each			
4.1.8	3½ X 240 sq. mm (62mm)	1.00	Each			
4.2	Supplying and making indoor end termination with copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required.					
4.2.1	1X35Sq.mm	12.00	each			
4.2.2	4X10Sq.mm	1.00	each			
4.2.3	1X25Sq.mm	8.00	each			
	Sub-Total					
5	CIVIL ITEMS					
5.1	Excavation of the cable trenches in hard rock not exceeding 1.5 metres in width, and lift upto 1.5 metres, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 metres.	9.36	cum			
	Sub-Total					
6	CUBICLE BOARDS (MARKET ITEM)					
6.1	Repairing and painting of feeder pillar boxes.					
6.1.1	Shifting and erection of panel in trench (Channel Supplier scope) including both incoming and outgoing cables re-termination, glands, interconnection, Labelling of incoming and outgoing feeders etc., as required.	1.00	each			
6.2	Supply and fixing of Rubber mats/chequered plates.					
6.2.1	415V Rubber mats.(1mtrX1mtr) IS15652 medium	6.50	Sq mtr			
6.2.2	Chequered plate thickness 6mm	4.55	Sq mtr			
	Sub-Total					
7	SUPPLY (MARKET ITEM)					
7.1	Supplying and fixing of ceiling fan of following sweep, suitable for operation on 230 Volts, single phase, 50 Hz, AC Supply including 300 mm long down rod and resistance type regulator as equired.(Make: Crompton Greaves,Rivera)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
7.1.1	1200 mm sweep	18.00	Each			
7.2	Supplying and fixing extra conduit down rod					
7.2.1	Supplying and fixing extra conduit down rod of 150 cm length G.I. pipe 20 mm dia, heavy gauge including painting etc.required. (Note: More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored.)	18.00	each			
7.2.2	Supplying and fixing of MS "S" type fan hook including chipping,fixing & surfacing to make good condition.	18.00	each			
7.3	Repairing and painting works.					
7.3.1	Removing of switch bords/DBs/light fittings/Fuse control box from wall works	21.00	each			
7.3.2	Labour charges for removing ceiling/exhaust/wall mounting/pedestal fan	18.00	each			
7.3.3	Labour charges for removing and refixing LED fitting in jasper hostel and EEE dept. and fabrication and fixing of street light fitting with connections etc as required	1.00	each			
	Sub-Total					
8	Supplying of Cables (MARKET ITEM)					
8.1	Supplying and fixing of following size ISI marked PVC insulated and unsheathed copper single core conductor cable of 1.1 KV grade as required.(Make:Finolex,Gloster and Polycab)					
8.1.1	1x25.0sq mm	90.00	metre			
8.1.2	1x35.0sq mm	130.00	each			
	Sub-Total					
9	Supply of Light Fixtures with Lamps (MARKET ITEM)					
9.1	Supply and fixing of industrial batten suitable for TL5 lamp 28w. Available with optional reflector. (Make: Bajaj,Crompton Greaves, & philips etc) (with 2 years manufacturer's warranty)					
9.1.1	TMSI 22 M 1 X TL5 -28W EBT	2.00	each			
9.1.2	TMSI 22 M 2 X TL5 -28W EBT with lamp	19.00	each			
	Sub-Total					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
10	Adaptor box (MARKET ITEM)					
10.1	Cable adaptor box (MARKET ITEM)					
10.1.1	Supplying and fixing of M.S Box of following size with painting with red axid and enamel paint coating as required suitable MCCB DB. (Size 500x250x100 mm)	1.00	each			
	Sub-Total					
11	MCCB,MCB&DB'S DSR 2012					
11.1	(2.3) Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, 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)					
11.1.1	2 + 12 way, Double door (IP 43)	3.00	each			
11.2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, 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)					
11.3	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "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.					
11.3.1	Single pole	32.00	each			
11.3.2	Double pole	2.00	each			
11.4	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 1 pole and earth,metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required. (Make:Legrand/Siemens)	5.00	each			
11.5	Supplying and fixing TP sheet steel enclosure on surface/ recess along with following amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required. (Make:Legrand/Siemens)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
11.5.1	Double pole 6-32 A MCB with enclosure	14.00	each			
11.6	Supplying and fixing following ways surface/ recess mounting, vertical type, 415 volts, 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 MCB's, with provision of 160 amps TP 16 KA MCCB as incomer, interconnection between incomer MCCB and bus bars (but without MCB's/ MCCB) as required .(Note : Vertical type MCB TPDB is normally used where 3 phase outlets are equired.) TPN DBs-DPX 160 MCCB DBs and ELM as Incomer.(Make: Legrand/Siemens)					
11.6.1	8 Way (DPX3 160+24), Double door (160A,IP 43)	1.00	each			
11.7	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections and fabrication works etc. as required. (Make:Legrand/Siemens)					
11.7.1	4 Pole MCCB 160A , 36KA	2.00	each			
	Sub-Total					
	Total					

AE(P&D)

SCHEDULE OF WORK

State Tamilnadu

Branch Electrical

Name of Work : Renovation of electrical works in faculty rooms at SJB building ground floor in ECE dept.

Division EMD

Sub-Division EMC

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	WIRING					
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
1.1.1	Group C	101.00	Point			
1.2	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					
1.2.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	108.00	Metre			
1.2.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	324.00	Metre			
1.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
1.3.1	15/16 amp switch	20.00	Each			
1.3.2	3 pin 5/6 amp socket outlet	10.00	Each			
1.3.3	6 pin 15/16 amp socket outlet	20.00	Each			
1.4	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
1.4.1	4 Module (125mmX75mm)	10.00	Each			
1.4.2	8 Module (125mmX125mm)	10.00	Each			
1.5	DLP plasticTrunking wiring (But the rate without wires) (Make: Legrand/Siemens)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1.5.1	DLP Pastic Trunking 105x50mm and accessories Flexible cover 40mm width-1No, Flexible cover 85mm -1No, Joints for cover 40 mm width-1No, Joints for cover 85mm width-1No, Basejoint-25Nos, Clips-15Nos, Separation partition-1No, Endcap-1No, Internal angles-adjustable from 80 degr - 120 deg - 1No, VDI accessories for internal angles-1No, VDI accessories for external angles -1No, Flat angles -1No, VDI accessories for flat angles-1No, Flat junctions-1No, Flat junctions for specific size-tap off to an 80mm wide branch -1No, VDI accessories for junctions -1No, Wall crossing -1No, Capacity change -1No, Capacity change-1No, partition junction -1No, Cable ties base -1No. (Make: Legrand)	87.00	metre			
1.6	DLP Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed (The rate without DLP Pastic Trunking) as required.(Make: Finolex)					
1.6.1	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	216.00	metre			
1.6.2	4 X 16.0 sq. mm + 2 X 16.0 sq. mm earth wire	70.00	metre			
1.6.3	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	72.00	metre			
	Sub-Total					
2	E A R T H I N G					
2.1	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	70.00	Metre			
	Sub-Total					
3	MV CABLE LAYING					
3.1	Computer net Cable laying.					
3.1.1	Cat-6 4Pair net cable	200.00	Meter			
3.2	Supply and laying of following size Double walled Corrugated High Density Polyethylene pipe having corrugation on the outer wall and plain surface inner wall conforming to IS 14930 part- I and part -II complete with necessary HDPE fitting for protection of 1.1 KV grade under ground cable directly in ground at a depth 75cm including excavation and refilling the trench etc as required.					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
3.2.1	77mm/63mm (Outer Nominal Dia / Inner Nominal Dia)	100.00	mtrs			
3.3	Laying of telephone cable unarmoured pair 0.5Sq.mm FRLS PVC insulated annealed copper conductor in the existing surface/recessed steel/PVC conduit/DLP trunking ets as required.					
3.3.1	2-4 Pair	200.00	Meter			
	Sub-Total					
4	MV CABLE JOINTING & END TERMINATION					
4.1	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.					
4.1.1	3½ X 95 sq. mm (45mm)	2.00	Each			
	Sub-Total					
5	CIVIL ITEMS					
	Sub-Total					
6	SUPPLY (MARKET ITEM)					
6.1	Supplying and fixing of ceiling fan of following sweep, suitable for operation on 230 Volts, single phase, 50 Hz, AC Supply including 300 mm long down rod and resistance type regulator as equired.(Make: Crompton Greaves,Rivera)					
6.1.1	1200 mm sweep	18.00	Each			
6.2	Supplying and fixing extra conduit down rod					
6.2.1	Supplying and fixing extra conduit down rod of 150 cm length G.I. pipe 20 mm dia, heavy gauge including painditing etc.required. (Note: More than 5 cm lenth shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored.)	18.00	each			
6.2.2	Supplying and fixing of MS "S" type fan hook including chipping,fixing & surfacing to make good condition.	18.00	each			
	Sub-Total					
7	Supplying of Cables (MARKET ITEM)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
7.1	Supplying of following size ISI marked PVC insulated and PVC sheathed aluminium grade with armoured as required. (Make:Finolex,Gloster and Polycab)					
7.1.1	3½ X 95 sq. mm	100.00	Metre			
	Sub-Total					
8	Supply of Light Fixtures with Lamps (MARKET ITEM)					
8.1	Supply and fixing of industrial batten suitable for TL5 lamp 28w. Available with optional reflector. (Make: Bajaj,Crompton Greaves, & philips etc) (with 2 years manufacturer's warranty)					
8.1.1	TMSI 22 M 1 X TL5 -28W EBT	8.00	each			
	Sub-Total					
9	Adaptor box (MARKET ITEM)					
9.1	Cable adaptor box (MARKET ITEM)					
9.1.1	Supplying and fixing of M.S Box of following size with painting with red axid and enamel paint coating as required suitable MCCB DB. (Size 500x250x100 mm)	1.00	each			
	Sub-Total					
10	MCCB,MCB&DB'S DSR 2012					
10.1	(2.3) Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, 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)					
10.1.1	2 + 8 way, Double door (Make: Legrand IP 43)	6.00	each			
10.2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, 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)					
10.2.1	4 way (8 + 12), Double door	3.00	each			

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
10.3	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "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.					
10.3.1	Single pole	72.00	each			
10.3.2	Double pole	6.00	each			
10.4	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 1 pole and earth,metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required. (Make:Legrand/Siemens)	10.00	each			
10.5	Supplying and fixing for following amps rating, 240/415 volts,"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.(Make:Legrand/Siemens)					
10.5.1	Four pole 40-63 Amps MCB	3.00	each			
	Sub-Total					
	Total					

AE(P&D)

SCHEDULE OF WORK

State Tamilnadu

Branch Electrical

Name of Work : Modification of Single & three phase DBs, Switch boards and light fixtures with suitable wiring connections in faculty rooms at SJB building First floor in ECE dept.

Division EMD

Sub-Division EMC

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	WIRING					
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.					
1.1.1	Group C	97.00	Point			
1.2	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					
1.2.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	108.00	Metre			
1.2.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	324.00	Metre			
1.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
1.3.1	15/16 amp switch	20.00	Each			
1.3.2	3 pin 5/6 amp socket outlet	10.00	Each			
1.3.3	6 pin 15/16 amp socket outlet	20.00	Each			
1.4	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.					
1.4.1	4 Module (125mmX75mm)	10.00	Each			
1.4.2	8 Module (125mmX125mm)	10.00	Each			
1.5	DLP plasticTrunking wiring (But the rate without wires) (Make: Legrand/Siemens)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1.5.1	DLP Pastic Trunking 105x50mm and accessories Flexible cover 40mm width-1No, Flexible cover 85mm -1No, Joints for cover 40 mm width-1No, Joints for cover 85mm width-1No, Basejoint-25Nos, Clips-15Nos, Separation partition-1No, Endcap-1No, Internal angles-adjustable from 80 degr - 120 deg - 1No, VDI accessories for internal angles-1No, VDI accessories for external angles -1No, Flat angles -1No, VDI accessories for flat angles-1No, Flat junctions-1No, Flat junctions for specific size-tap off to an 80mm wide branch -1No, VDI accessories for junctions -1No, Wall crossing -1No, Capacity change -1No, Capacity change-1No, partition junction -1No, Cable ties base -1No. (Make: Legrand)	76.00	metre			
1.6	DLP Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed (The rate without DLP Pastic Trunking) as required.(Make: Finolex)					
1.6.1	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	200.00	metre			
1.6.2	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	72.00	metre			
	Sub-Total					
2	E A R T H I N G					
2.1	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	70.00	Metre			
	Sub-Total					
3	MV CABLE LAYING					
3.1	Computer net Cable laying.					
3.1.1	Cat-6 4Pair net cable	200.00	Meter			
3.2	Supply and laying of following size Double walled Corrugated High Density Polyethylene pipe having corrugation on the outer wall and plain surface inner wall conforming to IS 14930 part- I and part -II complete with necessary HDPE fitting for protection of 1.1 KV grade under ground cable directly in ground at a depth 75cm including excavation and refilling the trench etc as required.					
3.2.1	77mm/63mm (Outer Nominal Dia / Inner Nominal Dia)	250.00	mtrs			

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
3.3	Laying of telephone cable unarmoured pair 0.5Sq.mm FRLS PVC insulated annealed copper conductor in the existing surface/recessed steel/PVC conduit/DLP trunking ets as required.					
3.3.1	2-4 Pair	200.00	Meter			
	Sub-Total					
4	MV CABLE JOINTING & END TERMINATION					
4.1	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.					
4.1.1	3½ X 95 sq. mm (45mm)	2.00	Each			
	Sub-Total					
5	CIVIL ITEMS					
	Sub-Total					
6	SUPPLY (MARKET ITEM)					
6.1	Supplying and fixing of ceiling fan of following sweep, suitable for operation on 230 Volts, single phase, 50 Hz, AC Supply including 300 mm long down rod and resistance type regulator as equired.(Make: Crompton Greaves,Rivera)					
6.1.1	1200 mm sweep	18.00	Each			
6.2	Supplying and fixing extra conduit down rod					
6.2.1	Supplying and fixing extra conduit down rod of 150 cm length G.I. pipe 20 mm dia, heavy gauge including painditing etc.required. (Note: More than 5 cm lenth shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored.)	18.00	each			
6.2.2	Supplying and fixing of MS "S" type fan hook including chipping,fixing & surfacing to make good condition.	18.00	each			
	Sub-Total					
7	Supplying of Cables (MARKET ITEM)					
7.1	Supplying of following size ISI marked PVC insulated and PVC sheathed aluminium grade with armoured as required. (Make:Finolex,Gloster and Polycab)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
7.1.1	3½ X 95 sq. mm	262.00	Metre			
	Sub-Total					
8	MCCB,MCB&DB'S DSR 2012					
8.1	(2.3) Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, 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)					
8.1.1	2 + 8 way, Double door (Make: Legrand IP 43)	6.00	each			
8.2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, 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)					
8.2.1	4 way (8 + 12), Double door	1.00	each			
8.3	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "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.					
8.3.1	Single pole	64.00	each			
8.3.2	Double pole	6.00	each			
8.4	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 1 pole and earth,metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required. (Make:Legrand/Siemens)	10.00	each			
8.5	Supplying and fixing for following amps rating, 240/415 volts,"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.(Make:Legrand/Siemens)					
8.5.1	Four pole 40-63 Amps MCB	1.00	each			
	Sub-Total					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
	Total					

AE(P&D)

SCHEDULE OF WORK

State Tamilnadu

Branch Electrical

Name of Work : Providing new LED street lights from Opal to temple street road and opposite to Power house road.

Division EMD

Sub-Division EMC

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
1	EARTHING					
1.1	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	100.00	Metre			
	Sub-Total					
2	MV CABLE LAYING					
2.1	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 as required.					
2.1.1	Supplying and making LT cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 30 cm with a thickness of 8cm including inscription duly engraved as required.	4.00	each			
2.2	Supply and laying of following size Double walled Corrugated High Density Polyethylene pipe having corrugation on the outer wall and plain surface inner wall conforming to IS 14930 part- I and part -II complete with necessary HDPE fitting for protection of 1.1 KV grade under ground cable directly in ground at a depth 75cm including excavation and refilling the trench etc as required.					
2.2.1	40mm/32mm (Outer Nominal Dia / Inner Nominal Dia)	100.00	mtrs			
	Sub-Total					
3	MV CABLE JOINTING & END TERMINATION					
3.1	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.					
3.1.1	2 X 16 sq. mm (22mm)	16.00	Each			
	Sub-Total					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
4	POLE ERECTION					
4.1	Erection of steel tubular or rail pole strut in cement concrete without foundation and secured with holding clamps, bolts, nuts, etc. as required.(Pole-NITT Scope)					
4.1.1	Above 4.5 metre and upto 6.5 metre	18.00	Each			
	Sub-Total					
5	MV OVER HEAD LINE WORK					
5.1	Dismantling of over head lines comprising of copper/ aluminium over head conductor, G.I. wire, cross arms, insulators etc. as required.	120.00	Kg			
5.2	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required.	14.00	Each			
	Sub-Total					
6	CIVIL ITEMS					
6.1	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.					
6.1.1	300 mm dia	15.00	metre			
	Sub-Total					
7	SUPPLY OF POLES					
7.1	Manufacturing, supplying & erection of street light pole made of 80 mm dia C class GI pipe 6 mtr long welded 300mmx 300mmx 10mm thick base plate at bottom and provided with earth stud, Providing 50 mm dia HDPE Pipe/bend for cable entry (to SMC Box) and Wire entry (from SMC Box to Street light pole), painting with one coat of Anti-corrosive Primer and two or more coats of automobile grade metallic paint of approved brand and shade, providing cement concrete foundation (1:3:6) pedestal of size 450 mm x 450mm x 1500 mm , with suitable layer of base concrete below the CC foundation pedestal , Providing 4 Nos 20 mm dia,1500mm long foundation bolt with double nut at top, making hole in the base plate etc as reqd.					
7.1.1	6.00 Mtrs G.I pole	3.00	each			
7.2	Supply of wall brackets.					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
7.2.1	Manufacturing, Supply and Installation of Ornamental type MS street light bracket made of approved type and design with 500 mm overhanging from street light pole painting & not less than 9 Kg with one coat of Anti-corrosive Primer and two or more coats of automobile grade metallic paint of approved brand and shade, etc as reqd.	3.00	each			
	Sub-Total					
8	Supplying of Cables (MARKET ITEM)					
8.1	Supplying of following size ISI marked PVC insulated and PVC sheathed aluminium grade with armoured as required. (Make:Finolex,Gloster and Polycab)					
8.1.1	2x16sq mm	120.00	metre			
8.2	Supplying and fixing of following size ISI marked PVC insulated and PVC unsheathed copper single core and multi-core shaethed bright annealed bare copper flexible cables for voltage grade 1.1 KV grade as required.(Make:Finolex,Gloster and Polycab)					
8.2.1	3x1.5 sqmm	40.00	metre			
	Sub-Total					
9	Supply of Light Fixtures with Lamps (MARKET ITEM)					
9.1	Supplying and fixing street light luminaire with die cast aluminum housing and toughened glass cover with min IP65 protection , with the LED Type fixtures of following Wattage complete with all accessories and drivers, LN6 heat sink minimum 5kVA surge protection low power LEDs with driving current less than 350mA etc. on existing brackets on street light poles including connection & loop earthing with 3 core 1.5 sqmm flexible PVC insulated PVC round sheathed copper conductor cable from street light box to fitting, testing and commissioning etc. as required. (with 5 years manufacturer's warranty) (Make: Bajaj,Crompton Greaves, & philips etc)					
9.1.1	LED 40W ST white colour lamp.	21.00	each			
	Sub-Total					
10	Adaptor box (MARKET ITEM)					
10.1	Cable adaptor box (MARKET ITEM)					

ITEM No	SUB-HEADS AND ITEM OF WORK	QUANTITY	UNIT	RATE (Rs)	RATE (In Words)	AMOUNT(Rs)
10.1.1	Suppling and fixingof SMC cable looping box of size not less than 250mm x 200mm x 100mm deep alongwith 4 way SMC terminal block and 2 Nos 6A SP MCB etc.,as required.	4.00	each			
	Sub-Total					
	Total					

AE(P&D)