



**INDIAN INSTITUTE OF TECHNOLOGY MADRAS
ENGINEERING UNIT**

CHENNAI – 600 036

Price Bid (Volume 2)

T. No 01/2013-14/Eldb

Name of the work : Annual Maintenance contract for day to day routine maintenance of electrical installation and minor projects in Academic zone buildings for the year 2013-14

Date of Submission of Technical & Price bid : 03.00 pm on 28/01/2013

Date of opening of Technical bid : 03.10 pm on 28/01/2013

Date of opening of Price bid : Will be intimated later

**Bid Submitted to : The Executive Engineer (E),
Engineering Unit,
Administrative Block III Floor,
IITM, Chennai-36**

**-sd-
Consultant (Elec)**

**-sd-
Executive Engineer (Elec)**

INDIAN INSTITUTE OF TECHNOLOGY MADRAS
ENGINEERING UNIT

CHENNAI – 600 036

<p>TENDER DOCUMENT</p> <p>FOR</p> <p>Annual Maintenance contract for day to day routine maintenance of electrical installation and minor projects in Academic zone buildings for the year 2013-14.</p>
<p>VOLUME-2 (PRICE BID)</p>
<p>BILL OF QUANTITIES</p>
<p>Other volume:</p>
<p>Vol-1: Notice inviting tenders, Conditions of Contract, Additional specifications, General Conditions of Contract , list of approved makes etc.,</p>

**INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI-36**

Tender No. 01/2013-14/ELDB

Name of Work: Annual Maintenance contract for day to day routine electrical maintenance and minor projects at Academic zone buildings for the year 2013-14

Part A					
S.L No	Description of item	Qty	Rate	Each	Amount
1	Charges for operation of lifts at Administrative block as per the terms & condition specified.	12		Month	
(Rate in words Rupees					
2	Labour charges for minimum 2 wiremen & 2 Helpers for rectification of faults in panel boards, distribution board, switch boards, all kinds of light fittings and fans, equipments and all accessories and making them in good working condition.	12		Month	
(Rate in words Rupees					
3	Supplying of following accessories for replacement in item no.2 as and when required during the AMC period.				
3.1	1200mm x 40 w flourescent tube	2000		Each	
(Rate in words Rupees					
3.2	600 mm x 18 watts florescent tube	800		Each	
(Rate in words Rupees					
3.3	36 watts compact flourescent lamp	300		Each	
(Rate in words Rupees					
3.4	40 watts electronics ballast	600		Each	
(Rate in words Rupees					
3.5	40w starter	800		Each	
(Rate in words Rupees					
3.6	20w starter	300		Each	
(Rate in words Rupees					
3.7	9w /11 W PL Lamp	200		Each	
(Rate in words Rupees					

3.8	9w/11 watts electronic ballast.	150		Each	
(Rate in words Rupees					
3.9	50 Watts Holgen spot lamps complete set including power supply unit.	100		Each	
(Rate in words Rupees					
3.10	5 amps. 3 pin top	50		Each	
(Rate in words Rupees					
3.11	15 amps. 3 pin top	50		Each	
(Rate in words Rupees					
3.12	Resistant type fan regulator	25		Each	
(Rate in words Rupees					
3.13	Ceiling rose	50		Each	
(Rate in words Rupees					
3.14	2.5 mfd fan condenser (KEIL / USHA)	500		Each	
(Rate in words Rupees					
3.15	5 A flush type SP switch	200		Each	
(Rate in words Rupees					
3.16	5 A flush type 2 way switch	25		Each	
(Rate in words Rupees					
3.17	15 A flush type SP switch	50		Each	
(Rate in words Rupees					
3.18	15 A CS 2 in plug	50		Each	
(Rate in words Rupees					
3.19	15 A 5 in 1 CS plug	25		Each	
(Rate in words Rupees					
3.20	Brass Slanting / Pattern / Pendent holder	20		Each	
(Rate in words Rupees					

3.21	Wooden round block	300		Each	
(Rate in words Rupees					
3.22	5 A flush type 5 pin socket	100		Each	
(Rate in words Rupees					
3.23	150W Electronics modular make (2 module) stepped fan regulator	400		Each	
(Rate in words Rupees					
3.24	20A Metal clad socket top (2 pin & Earth)	50		Each	
(Rate in words Rupees					
3.25	32 amperes TP+N+E tempra plug controlled by 32 amperes 4 pole MCB	10		Each	
(Rate in words Rupees					
3.26	6 A one way modular type switch	50		Each	
(Rate in words Rupees					
3.27	16 A one way modular type switch	50		Each	
(Rate in words Rupees					
3.28	6 A 5 pin Modular socket	50		Each	
(Rate in words Rupees					
3.29	16 A /6 A modular socket	50		Each	
(Rate in words Rupees					
3.30	14W T5 FTL (HPL-6500K) warm/ cool	250		Each	
(Rate in words Rupees					
3.31	28w T5 FTL (HPL-6500K) warm/ cool	250		Each	
(Rate in words Rupees					
4	Supplying and fixing of ball and socket on the existing round block	100		Each	
(Rate in words Rupees					

5	Supplying and fixing of steel conduits for suspension for fittings from ceiling with necessary cutting and threading works	200		Mtrs	
(Rate in words Rupees					
6	Supplying and fixing of additional fan down rods for suspension of fans from ceiling if required.	100		Mtrs	
(Rate in words Rupees					
7	Supplying & fixing of remote call bell/ buzzer on wall with necessary connections. The guarantee of the bell should be one year.	10		Each	
(Rate in words Rupees					
8	Supplying and fixing of call bell/ buzzer suitable for D.C/ A.C. single phase, 230 volts, complete set as required. The guarantee of the bell should be one year.	10		Each	
(Rate in words Rupees					
9	Supplying and laying of following flexible multi strand copper cable				
9.1	3c x 4 sqmm	90		Mtrs	
(Rate in words Rupees					
9.2	4 c x 4 sqmm	90		Mtrs	
(Rate in words Rupees					
10	Shifting of UPS & allied battery bank (up to 30kVA)with necessary connections	8		Each	
(Rate in words Rupees					
11	Supplying and fixing of fan hook	75		Each	
(Rate in words Rupees					
12	Removing and re-fixing/relocating of following items with necessary connection etc.....				
12.1	Light fittings / fans / DB's / MCB's / Enclosures and wirings including PVC pipe and accessories	200		Each	
(Rate in words Rupees					

13	Rewinding of 1200 /1400 mm sweep ceiling fans using enameled copper wire of same gauge ,varnishing and required accessories like changing of Ball Bearings, Condensor, Condensor Clamp and making the fan working condition .The rate should be inclusive of transportation and the warranty of the workmanship should be minimum six months.	100		Each	
(Rate in words Rupees)					
14	Rewinding of 300/450 mm sweep Exhaust fans using enameled copper wire of same gauge, varnishing and required accessories like changing of Ball Bearings, Condensor, Condensor Clamp and making the fan working condition .The rate should be inclusive of transportation and the warranty of the workmanship should be minimum six months.	30		Each	
(Rate in words Rupees)					
15	Repair & Servicing of 1200/1400mm sweep AC Ceiling Fans including cost of changing of Ball Bearings, Condensor, Condensor Clamp and necessary connection.	50		Each	
(Rate in words Rupees)					
TOTAL (PART A)					

Total Amount for Part A in words Rupees

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Part B (Minor Project Works)					
1	Point wiring in PVC conduit, with modular type switch/regulator wiring for light point/ fan point/ exhaust fan point/ call bell point/ 6 amps switched socket with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, with modular switch, modular plate, suitable GI / PVC box, ceiling rose, round block and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required and instructed by the engineer in-charge.	650		Points	
(Rate in words Rupees)					
2	Supplying and fixing of following modular switch/ socket on a modular plate & switch box including connections as required				-
2.1	6 amps. socket controlled by 6 amps. one way switch	600		Each	
(Rate in words Rupees)					
2.2	16 amps. socket controlled by 16 amps. one way switch	1400		Each	
(Rate in words Rupees)					
2.3	3x 5 Amps. UPS socket controlled by one 15 Amps. Switch	300		Each	
(Rate in words Rupees)					
3	Supplying and fixing of MK premium base & lid of NCT 1050 type cable management system with required specials and accessories including end caps, flexible internal/external corners flat angles, Flat tee, joint cover wherever necessary with cable divider, required type of modular box etc as per the site requirements	500		Each	
(Rate in words Rupees)					

4	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in a suitable surface/ recessed steel/ PVC conduit as required.					-
4.1	2 runs of 2.5 sq.mm and 1 run of 2.5 sq.mm cable	4500		Mtrs		
(Rate in words Rupees						
4.2	2 runs of 4.0 sq.mm and 1 run of 4 sq.mm cable	11000		Mtrs		
(Rate in words Rupees						
4.3	2 Runs of 6.0 sq.mm and 1 run of 6sq.mm cable	800		Mtrs		
(Rate in words Rupees						
4.4	2 Runs of 10.0 sq.mm and 1 run of 10.0 sq.mm cable	200		Mtrs		
(Rate in words Rupees						
4.5	2 Runs of 16.0 sq.mm and 1 run of 16.0 sq.mm cable	200		Mtrs		
(Rate in words Rupees						
4.6	4 runs of 4.0 sq.mm and 2 runs of 4 sq.mm cable	1500		Mtrs		
(Rate in words Rupees						
4.7	4 runs of 6.0 sq.mm and 2 runs of 6 sq.mm cable	500		Mtrs		
(Rate in words Rupees						
4.8	4 runs of 10.0 sq.mm and 2 runs of 10 sq.mm cable	300		Mtrs		
(Rate in words Rupees						
4.9	4 runs of 16.0 sq.mm and 2 runs of 16.0 sq.mm copper cable	250		Mtrs		
(Rate in words Rupees						

5	Supplying and drawing of following sizes FRLS PVC insulated copper conductor single/ multi strand cable in the existing cable management system or casing capping.				
5.1	3 runs of 2.5 sq.mm	1500		Mtrs	
(Rate in words Rupees)					
5.2	3 runs of 4.0 sq.mm	1800		Mtrs	
(Rate in words Rupees)					
5.3	3 Runs of 6.0 sq.mm	200		Mtrs	
(Rate in words Rupees)					
6	Supplying and fixing following company made sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc as required. (without MCB/ RCCB/ Isolator).				-
6.1	2+ 4 way single phase and neutral (double door type)	2		Each	
(Rate in words Rupees)					
6.2	2+8 way single phase and neutral (double door type)	15		Each	
(Rate in words Rupees)					
6.3	4 way (4+12)three phase and neutral (double door type)	15		Each	
(Rate in words Rupees)					
6.4	4 way (4+12)three phase and neutral (VTPN double door type)	10		Each	
(Rate in words Rupees)					
6.5	8 way (4+24) three phase and neutral (VTPN double door type)	15		Each	
(Rate in words Rupees)					

6.6	12 way (4+36) three phase and neutral (VTPN double door type)	15		Each	
(Rate in words Rupees)					
7	Supplying & fixing of following rating 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc as required				-
7.1	40 amperes double pole Isolator	10		Each	
(Rate in words Rupees)					
7.2	40 amperes four pole Isolator	10		Each	
(Rate in words Rupees)					
7.3	63 amperes four pole Isolator	10		Each	
(Rate in words Rupees)					
7.4	100 amperes four pole Isolator	5		Each	
(Rate in words Rupees)					
8	Providing and fixing following of rating and breaking capacity MCCB in the existing cubicle panel board including drilling holes in cubicle panel, making connections, etc as required.				-
8.1	16 kA, 125 amperes 4 pole MCCB	10		Each	
(Rate in words Rupees)					
8.2	25 kA, 200 Amps 4 pole MCCB	5		Each	
(Rate in words Rupees)					
9	Supplying & fixing of following ratings, miniature circuit breaker in the existing MCB DB complete with connections, testing and commissioning etc as required				-
9.1	6 - 32 Amperes Single pole MCB	400		Each	
(Rate in words Rupees)					

9.2	6 to 32 Amperes double pole MCB	75		Each	
(Rate in words Rupees					
9.3	6 to 32 Amperes triple pole MCB	100		Each	
(Rate in words Rupees					
9.4	40 amperes triple pole MCB	25		Each	
(Rate in words Rupees					
9.5	63 amperes triple pole MCB	50		Each	
(Rate in words Rupees					
9.6	63 amps 4 pole MCB	25		Each	
(Rate in words Rupees					
9.7	40 amperes 4 pole MCB	25		Each	
(Rate in words Rupees					
9.8	63 Amperes Double pole	20		Each	
(Rate in words Rupees					
10	Supplying & fixing of following company made sheet steel enclosure on wall/ concealed on wall to fix the MCB/ isolators with connections, testing and commissioning etc as required				-
10.1	Single pole Enclosure	50		Each	
(Rate in words Rupees					
10.2	Double/triple/four pole Enclosure	120		Each	
(Rate in words Rupees					

10.3	6-32A amperes 2 pole MCB	20		Each	
(Rate in words Rupees)					
10.4	6-32 Amperes triple pole MCB	20		Each	
(Rate in words Rupees)					
11	Supplying & fixing of following metal clad plug and socket in accompany made sheet steel enclosure on wall/in flush with wall with necessary connections and earth connections.				-
11.1	Supplying and fixing of 20 amperes MC Plug and Socket controlled by 20 amperes SP MCB on a suitable sheet steel enclosure on wall with single phase 5-20A static Energy meter with down load communication port and with necessary end connections.	120		Each	
(Rate in words Rupees)					
11.2	Supplying and fixing of 32amperes 3ph MC Plug & Socket controlled by 32 amperes TPN MCB on a suitable sheet steel enclosure on wall with single phase 40A 3ph static Energy meter with down load communication port and with necessary end connections.	30		Each	
(Rate in words Rupees)					
12	Supplying, installation, testing and commissioning of pre wired following type of FTL /CFL fittings complete with all accessories and Tubes/CFL etc on wall/ceiling/false ceiling including connections with 1.5 sq.mm FRLS PVC insulated single core copper conductor wires and earthing etc as required.				-
12.1	1200mm x 28 w T5 single box type fitting with HF ballast and Tubes. (LHIT01128032/T5GP28EB/TMS122 M 1XTL5 28W EBT /160483 BTIR 128)	250		Each	
(Rate in words Rupees)					

12.2	1200mm x 28 w T5 Twin box type fitting with HF ballast and Tubes. (LHIT01228033/T5GP228EB/TMS122 M 2XTL5 28W EBT/160484 BTIR 228)	170		Each	
(Rate in words Rupees					
12.3	1200mm x 40 w / 36 w single Side reflector fitting with HF ballast and Tubes suitable for black board lighting.	50		Each	
(Rate in words Rupees					
12.4	3x 14 w T5 False Ceiling / surface mounting mirror optics fittings with electronic ballasts and lamps (TD7314331/T5CQ11314EB/TBS669M 3 x TL5-14W EBP D6 /538684 BTTI314V2)	225		Each	
(Rate in words Rupees					
13	Supplying, installing, testing and commissioning of ceiling fan, including wiring the down rods of length up to 45 cm with 1.5 sq mm FRLS PVC insulated, copper conductor, single core cable etc as required.				-
13.1	900 mm sweep ceiling fan	10		Each	
(Rate in words Rupees					
13.2	1200 mm sweep ceiling fan	200		Each	
(Rate in words Rupees					
13.3	1400 mm sweep ceiling fan	20		Each	
(Rate in words Rupees					
14	Supplying and installation of following exhaust fans with metal blade in the existing opening and making connections and testing, commissioning etc as required.				-

14.1	300 mm sweep exhaust fan (heavy duty)	100		Each	
(Rate in words Rupees					
14.2	450 mm sweep exhaust fan (heavy duty)	20		Each	
(Rate in words Rupees					
15	Supplying & providing of 400 mm sweep with metal blade pedestal mounting fan including transporting, assembling and put into service.	5		Each	
(Rate in words Rupees					
16	Earthing with GI earth plate 600x600x6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	10		Set	
(Rate in words Rupees					
17	Earthing with copper earth plate 600x600x3mmthick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7m long etc with charcoal/coke and salt as required.	10		Each	
(Rate in words Rupees					
18	Supplying and laying of following size earth flats at 0.50 mtr below the earth including soldering/welding as required				-
18.1	Single run of 16 sq.mm multi stranded copper wire in a suitable PVC pipe and clamps	300		Mtrs	
(Rate in words Rupees					
18.2	25 x 5mm copper strip	100		Mtrs	
(Rate in words Rupees					

18.3	25 x 5mm GI strip	200		Mtrs	
(Rate in words Rupees)					
19	Testing of earth electrodes using necessary testing equipment and improve the earth by excavating the soil and sub soil and refilling the same with alternate layer of charcoal/coke and salt if required. The values are to be entered in a separate register and submitted to the Engineer in-charge . The work should be inclusive of replacement of bolts and nuts, white washing the masonry pedestals , paint marking the earth values, date of testing done , due date for the next test and pit number on the enclosures and also inside the earth pit.	300		Each	
(Rate in words Rupees)					
	TOTAL (PART B)				

Total Amount for Part B in words Rupees

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TENDER NO.01/2013-14/ELDB

Name of work: **Annual Maintenance contract for day to day routine maintenance of electrical installation and minor projects in Academic zone buildings for the year 2013-14**

Description	Amount in Rs.
Part-A	Rs.
Part-B	Rs.
Grand Total	Rs.

Grand Total Amount in words Rupees

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Signature of the Contractor

**-sd-
Consultant (Elect)**

**-sd-
Executive Engineer (E)**