

**UNIVERSITY OF KERALA
ENGINEERING UNIT, KARIAVATTOM.**

Tender Schedule for the work of Standardization of existing panel board in the Environmental Science (old block) building at Kariavattom Campus(retender)

Sl No	Qty	No	Specification	Unit	Rate	Rate in words	Amount
1		No	Supply conveyance installation testing and commissioning of 415V, 50 C/s load bank enclosure single cover complete with all accessories, 1 set of cable alley and meter module comprising 1 no 125A 3 pole current limiting type Microprocessor based release MCCB with thermal setting of 50 to 100% adjustable with SC & OL protection 35/36kA as incoming, 5 nos 40A thermal magnetic adjustable type TP MCCB 25kA and 1 no 63A 25kA MCCB as outgoing, with 3 nos LED phase indication lamps, 3 nos digital type ammeters, 1no digital type 3 phase voltmeter with selector switch including necessary legend plates such as danger notice, busbar champer, cable alley etc and erection as directed at site	E	114430.00	Rs. One lakh Fourteen thousand four hundred & thirty only	114,430.00
2			Supply and installation of sheet steel, phosphatised and painted, dust and vermin proof enclosure of MCB DB including copper /brass bus bar, neutral link, earth bus and DIN rail suitable for fixing MCB/ isolator etc. fixed on wall using suitable anchor bolts or fixed in recess including cutting hole on the wall , making good the damages, colour washing etc. as required				

2.1			6 way (8+18) - double cover TPN vertical DB with provision for fixing 4P MCB / Isolator/ RCCB/ RCBO as incomer and SP/ TP MCB as outgoing (IP 42/43)	E	8960.00	Rs.Eight thousand nine hundred & sixty only	8,960.00
3			Supply and installation of the following <i>accessories</i> suitable for 50 Hz , AC supply conforming to IS 8828-1995/ IEC 60898 of the following current ratings in the existing enclosure and giving connections as required				
3.1	1	No	63 A four pole mini break isolator	E	752.00	Rs. Seven hundred & fifty two only	752.00
3.2	5	Nos	6-32A(C curve) SP MCB	E	219.00	Rs.Two hundred & nineteen only	1,095.00
3.3	5	Nos	32A TP MCB	E	908.00	Rs.Nine hundred & eight only	4,540.00
4			Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium power cable, 1.1 KV grade of the following sizes using clamps noted along with the cables, spacing of clamps not exceeding 60cms, making good the damages , colour washing etc. as required.				
4.1	5	m	4 core 35 sq mm with factory made clamp	m	351.00	Rs. Three hundred & fifty one only	1,755.00
4.2	5	m	4c 70 sqmm	m	548.00	Rs. Five hundred & forty eight only	2,740.00
5			Supplying siemens / tropodur type nickel plated Double compression brass cable gland for PVC insulated and PVC sheathed armoured aluminium/ copper conductor cable 1.1 KV grade, and making end termination suitable for 2/ 3/ 3½/ 4 core cable of the following sizes as required.				
5.1	2	Nos	35 sq mm	E	469.00	Rs.Four hundred & sixty nine only	938.00
5.2	2	Nos	70 sq mm	E	714.00	Rs. Seven hundred & fourteen only	1,428.00

6			Supplying and providing <i>earth clamps</i> for siemens/ tropodur type cable glands of suitable length and other dimensions noted along with each size of glands for the following sizes of cables as required.				
6.1	4	Nos	25 sq - 95sq mm with 20 mm wide x 1.20 mm thick clip	E	27.00	Rs. Twenty seven only	108.00
7			Supply of superior quality <i>aluminium tubular cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required.				
7.1	8	Nos	35 sq mm	E	16.00	Rs. Sixteen only	128.00
7.2	8	Nos	70 sq mm	E	24.00	Rs. Twenty four only	192.00
8		No	Supply and providing <i>plate earthing</i> as per IS 3043 with 600x600x6.30 mm GI/CI earth plate, 20 mm GI watering pipe fixed to the earth plate with 20 x 3 mm GI clamps, GI funnel with weld mesh, filling required quantity of charcoal including construction of inspection chamber with a bed concrete of 1:4:8 PCC using 40 mm broken stone (10 cm thick), brick work in cement mortar 1:6, plastering the surface of brick masonry and the exposed surface of PCC bed with cement mortar 1:4, 12 mm thick, (the finished inside dimension shall be 300 x 300 x 300 mm) but excluding test joint, earth continuity conductor to the plate, and covering at the top. (<i>in ordinary soil</i>)	E	3917.00	Rs. Three thousand nine hundred & seventeen only	3,917.00
9			Supply and providing the following sizes of <i>cast iron gully trap with covering</i> at the top of the inspection chamber of earth pit as required				

9.1	1		300 x 300 x 6 mm cast iron gully trap with covering	E	267.00	Rs. Two hundred & sixty seven only	267.00
10			Supply and providing <i>test joint for the earthing system</i> using 2 Nos of the following sizes of strips including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc as required.				
10.1	0.3	m	2 x 25 x 3 mm GI strip	m	165.00	Rs. One hundred & sixty five only	49.50
11			Supply and providing <i>earth lead from the test joint to the earth electrode</i> using the following sizes of conductors/ strips including cutting, drilling necessary holes (in case of strip) and fixing firmly with plate test joint etc as required.				
11.1	4	m	25 x 3 mm GI strip	m	73.00	Rs. Seventy three only	292.00
12			Supply and laying bare <i>earthing conductors</i> of the following sizes <i>laid 0.6 m below ground level including excavating trench</i> of suitable size and refilling etc. as required (<i>in ordinary soil</i>).				
12.1	15	m	4.00 mm copper conductor (8 SWG)	m	107.00	Rs. One hundred & seven only	1,605.00
13			supply of superior quality <i>copper earth socket</i> for the following sizes of earth conductor including crimping etc. as required.				
13.1	6	Nos	4.00 mm (8 SWG)	E	23.00	Rs. Twenty three only	138.00
14			Supply and providing the following sizes of <i>bolt and nut</i> with washers on the existing MS box / earth bus etc. as required including drilling necessary holes as required				
14.1	10	Nos	25 x 3mm brass bolt & nut	E	17.00	Rs. Seventeen only	170.00

15			Supplying , threading , laying and jointing of the following sizes of 'B' class <i>GI pipe</i> with all required accessories <i>in ground in the existing trench</i> as protective covering to earth leads.				
15.1	5	m	15 mm dia	m	90.00	Rs. Ninety only	450.00
16			Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>on surface</i> including making good the damages etc as required.				
16.1	10	m	25 mm dia light gauge	m	95.00	Rs. Ninety five only	950.00
17			Supply and drawing 650/1100 V grade <i>PVC insulated stranded single core copper conductor cables</i> conforming to IS 694 part I 1990 in the existing surface / recess conduit as required including giving necessary connections of the following sizes.				
17.1	20	m	6.00 sq mm 2 run	m	144.00	Rs. One hundred & forty four only	2,880.00
17.2	20	m	4.00 sq mm 2 run	m	106.00	Rs. One hundred & six only	2,120.00
			TOTAL				149,904.50

PAC Rs.1,49,904/- (Rs. One lakh forty nine thousand nine hundred and four only)

1. I/We agreed to execute the work.
2.% above the estimate rate.
2.% below the estimate rate.
3. At the estimate rate.

CONTRACTOR

UNIVERRSITY ENGINEER