

**UNIVERSITY OF KERALA
ENGINEERING UNIT, KARIAVATTOM**

**TENDER SCHEDULE FOR IMPLIMENTATION OF IT TRAINING CENTRE AND SOFTWARE DEVELOPMENT CENTRE BUILDING
AT SH CAMPUS TRIVANDRUM- ELECTRIFICATION AND BIOMETRIC LOCK SYSTEM.**

Sl.No	Qty	Specification	Rate	Rate in words	Unit	Amount
1/122		Supply and wiring points according to IS 732-1989 using rigid PVC ivory conduit of minimum size 20 mm conforming to IS 9537 part III 1983 and with suitable size specials conforming to IS 3419-1988, fixing the conduit using metal saddles spacing not exceeding 50 cm or concealed suitably and with 1.00 sq mm PVC insulated stranded single core FR <i>copper conductor cable</i> 650V grade,including providing switch board main ,and continuous earthing with 1.5sqmm green coloured FR wire , required qty of copper earth socket, brass bolt and nut crimping etc complete with suitable size modular type metal switch boxes, <i>modular type front plates (white)</i> etc. up to and including 6 A modular type ROHS compliant SP switches and making good the surface of wall, colour washing etc. complete. All the terminations in the switch boards and DB's shall be tinned and the wires shall be drawn and fixed along the periphery of the box using suitable ties, tie mounts etc as required.				
B1	10	Single control light point with 6A, 3 plate ceiling rose	966.00	Rs. Nine hundred and sixty six only	E	9660.00
B4	5	Single control light point without ceiling rose	946.00	Rs. Nine hundred and forty six only	E	4730.00
B6	4	Single control ceiling fan point with 6 A, 3 plate ceiling rose & with socket size stepped electronic regulator.	1622.00	Rs. One thousand six hundred and twenty two only	E	6488.00
B8	3	Combined plug point with 6 A, 5 pin plug socket controlled by 6 A switch in the same switch board as that of light points.	483.00	Rs. Four hundred and eighty three only	E	1449.00

2/206	22	Supplying and providing <i>extra steel chain</i> (16 SWG) <i>2 x 1.00 m</i> long with 16/0.20 mm 3 core copper conductor flex wire conforming to relevant ISS or with the extended original wiring and giving connection etc. as required.	207.00	Rs. Two hundred and seven only	E	4554.00
3/208	2	Conveyance, installation, testing and commissioning of pre-wired light fittings of all types complete with all accessories and fluorescent lamps etc. including supplying and fixing <i>ball and socket arrangements</i> on T.W round block, suspension down rod of <i>19 mm dia MS conduit</i> up to 2x30cm length including painting and wiring the down rod with 16/0.20mm 3 core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and giving connections etc. a required.	371.00	Rs. Three hundred and seventy one only	E	742.00
4/229		<i>Supply</i> , conveyance, installation, testing and commissioning of pre-wired fitting made of CRCA sheet .5mm thick with all accessories and lamps etc. suspended from ceiling <i>using 2 nos steel chain of length not exceeding 30 cm</i> properly hooked to steel hooks anchored to the ceiling and giving connections with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS or extending the original wiring and giving connection etc. as required.				
E	21	Recess mounting decorative fluorescent tube (cat2)light fitting complete with lamp holder, APF electronic ballast suitable for continuous operation with THD <10%, power factor >0.98, RoHS compliant,high lumen tube, duly wired up for use on 230 V AC supply. Suitable for 4 Nos 14 W T5 lamps	7058.00	Rs. Seven thousand and fifty eight only	E	148218.00
5/240	4	Supply and fixing angle / straight brass lined skirt type, <i>bakelite batten holder</i> without shade and giving connection etc as required	63.00	Rs. sixty three only	E	252.00
6/244		Supply and fixing <i>cast aluminium stove enameled bulk head fitting</i> with deep drawn anodised aluminium body, epoxy				

		powder coated, heat resistant prismatic glass cover suitable for 9 W CFL to wall / ceiling including giving connections with required length of 16/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS or extending the original wiring and making good the surface as required.				
	4	Normal size 11 W BC / ES retrofit CFL	156.00	Rs. One hundred and fifty six only	E	624.00
7	1	<i>Charges for cutting holes</i> suitable for accommodating <i>exhaust fans</i> of sizes <i>up to 305 mm sweep</i> including plastering, colour washing etc. as required.	294.00	Rs. Two hundred and ninty four only	E	294.00
8/313		<i>Supply, conveyance, installation, testing and commissioning</i> of the following sizes of <i>exhaust fans</i> in the existing opening, fixing necessary bolt and nuts, making good the damages etc. as required including giving connections with required length of 24/0.20mm PVC insulated and PVC sheathed 3 core round copper conductor flex wire conforming to relevant ISS.				
	1	300/ 305 mm, single phase light duty exhaust fan in metal frame	1828.00	Rs. One thousand eight hundred and twenty eight only	E	1828.00
9/330		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.				
B1	150	20 mm dia medium gauge	87.00	Rs. Eighty seven only	M	13050.00
B2	50	25 mm dia medium gauge	99.00	Rs. Ninty nine on ly	M	4950.00
10		Supply and fixing the following sizes of <i>PVC Conduit</i> conforming to IS 9537 / 1983 part III along with all required accessories <i>in recess</i> including cutting the wall and making good the damages etc as required.				
B1	50	20 mm dia medium gauge	124.00	Rs. One hundred and twenty four only	M	6200.00
B2	10	25 mm dia medium gauge	136.00	Rs. One hundred and thirty six only	M	1360.00
11/333		Supplying and clamping the following sizes of <i>corrugated PVC flexible conduit</i> with necessary compression gland with locking ring and check nut at termination pointed using				

		suitable size GI / painted MS saddles spacing not exceeding 60 cms on surface including making good the damages, colour washing etc. as required.				
a	10	16 mm dia	48.00	Rs. Forty eight only	M	480.00
12/340		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.				
	50	1.50 sq mm 2 run	61.00	Rs. sixty one only	M	3050.00
	100	1.50 sq mm 4 run	94.00	Rs. Ninty four only	M	9400.00
	150	2.50 sq mm 1 run	55.00	Rs. Fifty five only	M	2250.00
	100	2.50 sq mm 2 run	81.00	Rs. Eighty one only	M	8100.00
	100	2.50 sq mm 3 run	107.00	Rs. One hundred and seven only	M	10700.00
	50	2.50 sq mm 4 run	134.00	Rs. One hundred and thirty four only	M	6700.00
	15	4.00 sq mm 2 run	106.00	Rs. One hundred and six only	M	1590.00
	20	4.00 sq mm 4 run	134.00	Rs. One hundred and thirty four only	M	2680.00
	10	6.00 sq mm 2 run	144.00	Rs. One hundred and forty four only	M	1440.00
13/343		Supplying & Drawing the following types of <i>UTP Cable</i> conforming to relevant standards through the existing conduit and giving connections as required				
b	700	Cat 6 UTP Cable	52.00	Rs. Fifty two only	M	36400.00
14/350		Supplying and fixing the following sizes of <i>M.S. Boxes</i> made out of 1.60 mm thick sheet painted grey (both inside and outside) <i>in surface/ recess</i> including phenolic laminated sheet covers of thicknesses noted along with screwed to the box as front cover with steel screws, cup washers etc. making good the surface, painting /colour washing etc. as required.				
C19	4	200x150x 50mm with 3 mm sheet	317.00	Rs. Three hundred and seventeen only	E	1268.00
C20	3	250X200x 50mm with 3 mm sheet	413.00	Rs. Four hundred and thirteen only	E	1239.00
15/360		Supplying and fixing the following <i>piano type accessories</i> in the phenolic laminated front cover of existing MS box				

		including providing necessary holes and giving connections etc. as required.				
A1	40	6A 1 way switch	47.00	Rs. Forty seven only	E	1880.00
D4	10	6 A 3 pin socket	53.00	Rs. Fifty three only	E	530.00
S3	10	100 W Step type fan regulator - 2 M	522.00	Rs. Five hundred and twenty two only	E	5220.00
16/385		Supply & Fixing the following types/ sizes of boxes suitable for modular accessories in surface/ recess including making good the damages, colour washing etc as required (ROHS)				
A3	54	1 module moulded plastic box on surface	185.00	Rs. One hundred and eighty five only	E	9990.00
A5	15	6 module moulded plastic box on surface	209.00	Rs. Two hundred and nine only	E	3135.00
A6	4	8 module moulded plastic box on surface	233.00	Rs. Two hundred and thirty three only	E	932.00
B3	2	3 module metal box in recess	194.00	Rs. One hundred and ninty four only	E	388.00
C3	17	12 module metal box in recess	269.00	Rs. Two hundred and sixty nine only	E	4578.00
17		Supply & Fixing the following types/ sizes of front plates on the existing modular boxes. (RoHS)				
C9	54	1 module white/ off-white	101.00	Rs. One hundred and one only	E	5454.00
C11	2	3 module white/ off-white	116.00	Rs. One hundred and sixteen only	E	232.00
A12	15	6 module white/ off-white	152.00	Rs. One hundred and fifty two only	E	2280.00
A13	4	8 module white/ off-white	187.00	Rs. One hundred and eighty seven only	E	748.00
B2	17	12 module white/ off-white	251.00	Rs. Two hundred and fifty one only	E	4267.00
18		Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (RoHS)				
C4	60	6 A SP 1 way switch	119.00	Rs. One hundred and nineteen only	E	7140.00
B2	1	16 A SP 1 way switch	161.00	Rs. One hundred and sixty one only	E	161.00
G2	110	6A 3 pin shuttered socket	157.00	Rs. One hundred and fifty seven only	E	17270.00
H2	1	6/16 A socket	223.00	Rs. Two hundred and twenty three only	E	223.00
I5	54	RJ45	119.00	Rs. One hundred and nineteen only	E	6426.00
19		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				
T10	4	DP enclosure for independent mounting of MCB	486.00	Rs. Four hundred and eighty six only	E	1944.00
T12	4	FP enclosure for independent mounting of MCB/ RCCB/ RCBO	604.00	Rs. Six hundred and four only	E	2416.00
A1	2	12 way single phase double cover (IP 42/43)	1899.00	Rs. One thousand eight hundred and ninty nine only	E	3798.00
F3	1	6 way (8+18) - double cover TPN vertical DB with provision for fixing MCCB as incomer and SP/ TP MCB as outgoing (IP 42/43) (direction from department)	10124.00	Rs. Ten thousand one hundred and twenty four only	E	10124.00
20		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				
N5	2	40 A, 2 pole, 30 mA RCCB	2357.00	Rs. Two hundred and three hundred and fifty seven only	E	4714.00
I3	2	40 A double pole mini break isolator	356.00	Rs. Three hundred and fifty six only	E	712.00
J3	3	40 A triple pole mini break isolator	568.00	Rs. Five hundred and sixty eight only	E	1704.00
K3	1	63 A four pole mini break isolator	752.00	Rs. Seven hundred and fifty two only	E	752.00
V3	8	6-32A(C curve)SP MCB (C curve)	219.00	Rs. Two hundred and nineteen only	E	1752.00
21		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.				
	20	4 core 25 sq mm with factory made clamp	281.00	Rs. Two hundred and eighty one only	M	5620.00
	20	4c core 50 sq mm with factory made clamp	435.00	Rs. Four hundred and thirty five only	M	8700.00
22/686		Supply of superior quality <i>aluminium reducer (banana) cable socket</i> and making core termination of cables of the following sizes including crimping etc. as required.				
a	8	25 sq mm	22.00	Rs. Twenty two only	E	176.00
c	8	50 sq mm	31.00	Rs. Thirty one only	E	248.00
23		Supply and drawing bare <i>earthing conductors</i> of the				

		following sizes <i>along with wiring/ cables</i> and giving connection as required.				
C1	100	2.00 mm copper conductor (14 SWG)	26.00	Rs. Twenty six only	M	2600.00
C2	20	2.65 mm copper conductor (12 SWG)	43.00	Rs. Forty three only	M	860.00
24/826		Supply, conveyance and fixing the following types & current rated control gears & switchgears conforming to IS 13947 suitable for 440 V, 50 Hz, AC supply in the existing panel assembly as required				
A2	1	10/ 25/ 63/ 100A, 35/36 kA (Ics=100%Icu), 4 pole, current limiting type MCCB with microprocessor based release with overload setting of 50 - 100% having adjustable OL & SC	12659.00	Rs. Twelve thousand six hundred and fifty nine only	E	12659.00
1		Charges for dismantling existing DB ,old fittings such as switches switch boards unnecessary wires etc			LS	4195.00
2		Supplying, installation testing and commissioning of biometric lock system			LS	30000.00
Total						4,53,524.00

PAC Rs.453524/- (Rs. Four lakh fifty three thousand five hundred and twenty four only)

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

UNIVERSITY ENGINEER

CONTRACTOR