

**NAME OF WORK : REPAIR AND RENOVATION WORK (ELECTRICAL) OF "CHUNILAL BHAVAN" , NIPER - KOLKATA AT 168, MANIKTALA MAIN ROAD, KOLKATA-700054.**

**BOQ / FINANCIAL BID**

<b>SL NO</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>RATES(RS)</b>	<b>Amount (Rs.)</b>
1a	Dismantling, relocation, addition, alteration of wiring, switches, etc. and removing rubbish, etc. at a place as directed by Site-in-Charge.	1	lot		
1b	<b>Buyback all dismantled materials</b> like wiring, switches, etc .	1	lot		
2	<p><b>Main Distribution Panel</b></p> <p>Fabricating, assembling, painting(powder coated), supplying, erecting, testing, commissioning of Cubicle type, compartmentalised, floor mounted, use on 415/433 V, 3 Phase, 4 wire, 50 Hz AC supply SYSTEM LT panel board fabricated out of 2mm thick CRCA MS sheet&amp; MS angles with proper earthing attachment, Electrolytic tinned copper Busbars, interconnections, digital type meters, cluster LED type indicating lamps, small wiring protective MCBs, etc. and provision of bottom &amp; top entry / exit for all cables including indicating lamps in all phases showing ON/OFF condition.The panel should be as per relevant IS standards, Code of Practice,IE Rules ,Indian Electricity Act 2003. The Panel should be fabricated by CPRI certified Panel Builder. Panel shall be comprising of the following and described as under:</p> <p><b>Incommer</b></p> <p>1 No 400A 4P MCCB - (36KA ) microprocessor based, adjustable OL, SC, EF protection (MAKE- LEGRAND/L&amp;T/ABB) with rotary handle for AC panel complete with led phase indicating lamps, digital type MFM (Multi functional Meter). MCCB should have terminals/spreaders suitable for 3.5Cx185 sqmm PVC AL Ar. cable</p> <p><b>Outgoings:</b></p> <p>3 Nos 125A 4P MCCB (25KA) with adjustable type Thermo magnetic overload and short circuit proection (MAKE- LEGRAND/L&amp;T/ABB) with rotary handle for VTPN DBs (A.C) complete with led phase indicating lamps. MCCB should have terminals/spreaders suitable for 1 no 3.5Cx70 sqmm PVC AL Ar. cable</p> <p>8 Nos 63A 4P MCCB (16KA) with adjustable type Thermo magnetic overload and short circuit proection (MAKE- LEGRAND/L&amp;T/ABB) with rotary handle for TPN DBs complete with led phase indicating lamps. MCCB should have terminals/spreaders suitable for 1 no 3.5Cx25 sqmm PVC AL Ar. cable</p> <p>2 Nos 40A /4P MCCB (16KA) with adjustable type Thermo magnetic overload and short circuit proection (MAKE- LEGRAND/L&amp;T/ABB) with rotary handle for water pump complete with led phase indicating lamps. MCCB should have terminals/spreaders suitable for 1 no 4Cx10 sqmm PVC AL Ar. cable</p> <p><b>Busbar:</b> set of 400Amps. rated 4 nos Electrolytic copper Busbars with colour coded heat shrinkable PVC sleeves of adequate length.</p> <p><b>EARTH BUSBAR</b></p> <p>Continuous Galvanised MS Earth Busbar of size 50mmx6mm with necessary holes,galvanised bolts,nuts,washers etc</p>				
3	Supplying and fixing of 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 (but without MCB's and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	8 way (4 + 24), Double door	3	Each		

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4	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
a	125 Amp, 36 KA FP	3	Each		
5	Supply and fixing of MCCB following encloser box (sheet steel, 2mm /14 SWG) on the wall in surface / conceal fashion including mounting arrangement of MCCB complete in all respects.				
a	For four pole 125/160 DPX MCCB	3	nos		
6	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.				
a	Single pole	150	Each		
b	Single pole and neutral	5	Each		
c	Double pole	5	Each		
d	Triple pole	6	Each		
e	Triple pole and neutral	4	Each		
7	Supplying and fixing following rating, 415 volts, "C" curve, 10KA breaking capacity, FP miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	40/63 Amp Four pole	8	Each		
8	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	2	Each		
9	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)				
a	8 way (4 + 24), Double door	8	Each		
10	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)				
a	2 + 4 way/6 Way, Double door	1	Each		
b	2 + 8 way/10 way, Double door	2	Each		
c	2 + 12 way/14 way, Double door	2	Each		

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11	<b>EARTHING</b> Earthing with G.I. earth pipe 4.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal, coke and salt as required.	8	Each		
12	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I.pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	20	M		
13	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	100	M		
14	Supplying of following <b>XLPE</b> Armoured cable (Make Polycab/Gloster)				
a	3.5C x 185 Sqmm AL	50	M		
b	3.5C x 70 sq mm AL	45	M		
c	3.5C x 25 sq mm AL	150	M		
d	4C x 10 sq mm CU	60	M		
e	3C x 6 sq mm CU	40	M		
15	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				
a	3.5 c x 185 sqmm (57mm)	2	set		
b	3.5 c x 70 sqmm (38mm)	6	set		
c	3.5 c x 25 sqmm (28mm)	16	set		
d	4 c x 10 sqmm (25mm)	8	set		
e	3 c x 6 sqmm (19mm)	8	set		
16	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size on wall surface as required				
a	Above 95 sq. mm and upto 185 sq. mm (clamped with 25 /40x3 mm MS flat Clamp)	50	M		
b	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mmMS flat clamp)	45	M		
c	Upto 35 sq. mm (clamped with 1mm thick saddle)	250	M		

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17	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 PVC box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required				
a	Group C	140	Point		
18	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, singlecore cable in surface/ recessed medium class PVC conduit asrequired.				
a	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	300	Meter		
b	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire for PP	1500	Meter		
c	2 X 4.0 sq. mm + 1 X 4.0 sq. mm earth wire	800	Meter		
d	2 X 6.0 sq. mm + 1 X 6.0 sq. mm earth wire	300	Meter		
e	4 X 6.0 sq. mm + 2 X 6.0 sq. mm earth wire	50	Meter		
19	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	5/6 amps switch	90	Each		
b	2 way 5/6 amps switch	4	Each		
c	15/16 amp switch	90	Each		
d	3 pin 5/6 amp socket outlet	270	Each		
e	6 pin 15/16 amp socket outlet	60	Each		
f	Telephone socket outlet	20	Each		
20	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	38	Each		
21	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	20	Each		

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22	Supplying and fixing following size/ modules, PVC box alongwith modular base & cover plate for modular switches in surface/ recess etc as required.				
a	1 or 2 Module (75mmX75mm)	40	Each		
b	3 Module (100mmX75mm)	50	Each		
c	4 Module (125mmX75mm)	60	Each		
d	6 Module (200mmX75mm)	90	Each		
e	8 Module (125mmX125mm)	50	Each		
f	12 Module (200mmX150mm)	2	Each		
23	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	20 mm	400	Metre		
b	25 mm	700	Metre		
c	32 mm	50	Metre		
d	40 mm	20	Metre		
e	50 mm	20	Metre		
24	Supply of ceiling fan 1200mm sweep white colour	38	NOS		
25	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable etc. as required.	38	Each		
26	Installation of exhaust fan heavy duty including cutting holes & making good damages, connection, testing, commissioning etc. as required.				
a	Upto 450 mm sweep	8	Each		
27	Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes.	8	Each		
28	Installation of exhaust fan heavy duty including cutting holes & making good damages, connection, testing, commissioning etc. as required.				
a	30cm (12 inch)	8	Each		
29	Supply of good quality shutter on the outside surface of the following exhaust fans				
a	For 30 cm (12 inch ) exhaust fan.	8	Each		

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30	Supply and erection, testing and commissioning of Modular push type AC motor Starter 25A range with PVC box, Coverplate and Grid plate in surface / Recess fashion	40	E. Job		
31	Supply of following LED outdoor type Light fittings of weather, dust and vermin proof meeting IP 65 classification .				
a	40 watt LED Flood Light Fixture complete with aluminium body with suitable heat sinks, toughened glass cover with rubber gasket held in position with help of cast aluminium retaining ring. The fitting will have incorporated vibration isolators. The street light would be complete with 16 nos of 5W Cree LEDs of 150lm/w having life span of aprox 80000 hrs with W / WW optic lenses and suitable electronic driver.	4	Each		
b	60 watt LED Flood Light Fixture complete with aluminium body with suitable heat sinks, toughened glass cover with rubber gasket held in position with help of cast aluminium retaining ring. The fitting will have incorporated vibration isolators. The street light would be complete with 24 nos of 5W Cree LEDs of 150lm/w having life span of aprox 80000 hrs with W / WW optic lenses and suitable electronic driver.	4	Each		
32	Supply of following indoor type LED Light fittings of weather & dust proof.				
a	39 Watt 595 mm x 595 mm recess mounted cool white (6000K) LED fittings with extra high efficiency 150-180 lumens/watt (approx). LEDs and aluminium constructed body (provides superior thermal management for the LEDs as well as longer luminaire life due to it being corrosion resistant), high CRI LEDs and unique reactive passive driver of leading power factor with 5 years warranty.	90	Each		
b	15 Watt recess mounted LED type round down light with extra high efficiency 150-180 lumens/watt (approx.) LEDs, high CRI LEDs and unique reactive passive driver of leading power factor with 5 years warranty.	30	Each		
c	6 Watt recess mounted LED type spot light with extra high efficiency 150-180 lumens/watt (approx.) LEDs, high CRI LEDs and unique reactive passive driver of leading power factor with 5 years warranty.	10	Each		
d	18 watt 4 feet long LED type Tube light set Philips / Eveready make	30	Each		
33	Supply of Call bell/ buzzer, single phase	8	each		
	<b>TELEPHONE SYSTEM</b>				
34	Supplying and drawing following pair 0.5 sq mm FRLSPVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	2 Pair	1000	metre		
35	Supply of following pair colored armoured telephone cable with copper conductor of 0.51 mm dia PVC insulated altaped screen, galvanized steel wire armoured, and overall PVC sheathed in under ground /on wall with G.I saddles and screw on brick wall i/c making necessary holes on wall for laying cable & mending good damages. Necessary saddles ,screw will be suppliedby the contractor.				
a	20 pair	50	Mtrs		

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36	Supply and Installation ,Testing and Commissioning of Digital type EPABX for 8 Lines and 32 extension lines with 30AH 12V single battery (Exide / Amaron) back up ,each extension with programmable secure code to prevent misuse , inbuilt AVR of make ACCORD/MATRIX/PANASONIC or reputed brand including all necessary materials,wiring and connection	1	No		
37	Supply & fixing of telephone distribution box made of M.S sheet (14 SWG) suitable size (as per direction of engineer -in - charge) with Krone modules Elmax / Equivalent make with hinged door and lock with key and two coats of synthetic enamel paint (Siemens Gray/ Light grey) with following termination capacity i/c necessary connections of cables.				
a	50 pair	1	Each		
b	20 pair	3	Each		
38	Supply, installation, testing and commissioning of AC timer Distribution box for controlling of two nos AC interval of 4 hours with contractor of Havels make or equivalent strickly approved by engineer in charge at UPS DB	1	Set		
	<b>NETWORKING</b>				
39	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.	700	Mtr		
40	Supplying and fixing of modular type surface/recess mounted CAT-6 Information Outlet module with coverplate and PVC back box including connection of CAT VI wire	30	Each		
41	Supply, Installation, Testing & Commissioning of 6U Rack with accessories (APW President make or equivalent strickly approved by Engineer in charge)	3	No		
42	Supply, Installation, Testing & Commissioning of CAT-6 12 Port Patch Panel fully loaded (AMP or equivalent strickly approved by Engineer in charge)	3	No		
43	Supply, Installation, Testing & Commissioning of CAT-6 Patch cord 1 mtr length (Make-AMP or equivalent strickly approved by Engineer in charge)	20	No		
44	Supply, Installation, Testing & Commissioning of CAT-6 Patch cord 3 Mtrs length (Make-AMP or equivalent strickly approved by Engineer in charge)	20	No		
45	Supply, Installation, Testing & Commissioning of Sc-LC MM (50/125 pm) Fibre Patch Cord 3 mts (AMP or equivalent strickly approved by Engineer in charge)	1	No		
46	Supply, Installation, Testing & Commissioning of LC-LC MM (50/125) Fibre Patch Cord 3 mts (AMP or equivalent strickly approved by Engineer in charge)	1	No		
47	Supply, installation, Testing and commissioning of Cisco/Jupitor/allied telies make 12 Port L2 Managed switch 12 port 10/100/1000TX + 4 SFP Combo ports with 5 years warranty /Make : Allied Telesis Model No. AT-GS950/12/CISO/Juniper completed in all respect as per direction of engineer in charge.	3	Job		

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48	Supply, Installation, Testing & Commissioning of 12 Port Fibre LIU with fully loaded with Coupler (AMP or equivalent strickly approved by Engineer in charge)	1	No		
49	Supply of OM3 type MM (50/125 pm) 6 core Fibre Cable	50	Mtr		
50	Supply, Installation, Testing & Commissioning of SC-SC MM (50/125 pm) Fibre Patch Cord termination	1	No		
51	End Termination for OM3 type MM (50/125 pm) 6 CORE Fibre Cable	1	Job		
				TOTAL Rs.	