

UNIVERSITY OF KERALA						
ENGINEERING UNIT						
Tender Schedule for Electrical Works for Setting up of Computer lab for School of Distance Education Building at Karyavattom Campus.						
Sl. No	Item Description	Qty	Unit	Rate / Unit	Rate in Words	Amount
1 Computer Mains Supply						
1.1	90.9.2.12 Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.1 to 3 module mounting box	20	E	159.86	Rupees One Hundred and Fifty Nine and Eight Six Paise Only	3197.20
1.2	1.24.3 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.15/16 amp switch	20	E	157.24	Rupees One Hundred and Fifty Seven and Two Four Paise Only	3144.80
1.3	1.24.5 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.6 pin 15/16 amp socket outlet	20	E	211.03	Rupees Two Hundred and Eleven and Zero Three Paise Only	4220.60

1.4	1.28.2 Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required.3 Module	30	E	125.52	Rupees One Hundred and Twenty Five and Five Two Paise Only	3765.60
1.5	1.27.2 Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc as required.3 Module (100mmX75mm)	10	E	255.17	Rupees Two Hundred and Fifty Five and One Seven Paise Only	2551.70
1.6	90.10.3.15 Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (RoHS compliant)32A DP switch with indicator	5	E	555.07	Rupees Five Hundred and Fifty Five and Zero Seven Paise Only	2775.35
1.7	90.10.3.33 Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (RoHS compliant)25A 3pin Shuttered socket	5	E	309.79	Rupees Three Hundred and Nine and Seven Nine Paise Only	1548.95
2 Piping						0.00
2.1	90.6.10.1 Supply and fixing of following sizes of light gauge PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required20 mm	30	m	72.03	Rupees Seventy Two and Zero Three Paise Only	2160.90

2.2	90.6.10.2 Supply and fixing of following sizes of light gauge PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required 25 mm	20	m	82.03	Rupees Eighty Two and Zero Three Paise Only	1640.60
2.3	90.6.10.3 Supply and fixing of following sizes of light gauge PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required 32 mm	25	m	101.03	Rupees One Hundred and One and Zero Three Paise Only	2525.75
2.4	90.9.1.1 Supply and fixing 50 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required. 50x50mm Cable Management System with base and lid.	6	m	691.21	Rupees Six Hundred and Ninety One and Two One Paise Only	4147.26
2.5	90.9.1.7 Supply and fixing 50 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required. End cap	3	E	90.07	Rupees Ninety and Zero Seven Paise Only	270.21

2.6	90.9.1.9 Supply and fixing 50 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.Joint cover	3	E	80.07	Rupees Eighty and Zero Seven Paise Only	240.21
2.7	90.9.2.1 Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.100 x 50 mm CMS with base and lid	16	m	1000.21	Rupees Thousand and Two One Paise Only	16003.36
2.8	90.9.2.2 Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.Cable divider	16	m	121.07	Rupees One Hundred and Twenty One and Zero Seven Paise Only	1937.12

2.9	90.9.2.8 Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.End cap	2	E	132.07	Rupees One Hundred and Thirty Two and Zero Seven Paise Only	264.14
2.10	90.9.2.10 Supply and fixing 100 x 50 mm PVC Cable Management System with base and lid along with the following accessories conforming to IEC 61084/ BS 476 & 4678 on surface / recess including cutting the wall and making good the damages in case of recessed installation as required.Joint cover	10	E	102.07	Rupees One Hundred and Two and Zero Seven Paise Only	1020.70
	3 WIRING					0.00
3.1	od254685/2020_2021 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required. 12x 2.5 sq. mm	40.5	m	398.62	Rupees Three Hundred and Ninety Eight and Six Two Paise Only	16144.11
3.2	1.17.6 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.6 x 1.5 sq. mm	40.5	m	132.41	Rupees One Hundred and Thirty Two and Four One Paise Only	5362.61

3.3	1.17.7 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.7 x 1.5 sq. mm	15	m	157.24	Rupees One Hundred and Fifty Seven and Two Four Paise Only	2358.60
3.4	1.17.17 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.8 x 2.5 sq. mm	20	m	268.96	Rupees Two Hundred and Sixty Eight and Nine Six Paise Only	5379.20
3.5	1.17.4 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.4 x 1.5 sq. mm	20	m	88.28	Rupees Eighty Eight and Two Eight Paise Only	1765.60
3.6	1.17.2 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.2 x 1.5 sq. mm	10	m	51.03	Rupees Fifty One and Zero Three Paise Only	510.30
3.7	1.17.13 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.4 x 2.5 sq. mm	10	m	133.79	Rupees One Hundred and Thirty Three and Seven Nine Paise Only	1337.90

3.8	1.17.3 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.3 X 1.5 sq.mm	30	m	68.97	Rupees Sixty Eight and Nine Seven Paise Only	2069.10
3.9	1.17.29 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.2 x 6 sq. mm	32	m	158.62	Rupees One Hundred and Fifty Eight and Six Two Paise Only	5075.84
3.10	od254932/2020_2021 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required. 1 x 4 sq. mm	32	m	63.45	Rupees Sixty Three and Four Five Paise Only	2030.40
3.11	1.17.20 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.2 x 4 sq. mm	20	m	108.96	Rupees One Hundred and Eight and Nine Six Paise Only	2179.20
3.12	1.17.31 Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface / recessed steel/ PVC conduit as required.4 x 6 sq. mm	20	m	296.55	Rupees Two Hundred and Ninety Six and Five Five Paise Only	5931.00
4 DISTRIBUTION BOARDS						0.00

4.1	2.3.3 Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, 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 MCBIRCCB/Isolator12 way, Double door	3	E	1587.57	Rupees One Thousand Five Hundred and Eighty Seven and Five Seven Paise Only	4762.71
4.2	2.10.1 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.Single pole	30	E	238.62	Rupees two Hundred and Thirty Eight and Six Two Paise Only	7158.60
4.3	2.12.1 Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	9	E	306.20	Rupees Three Hundred and Six and Two Zero Paise Only	2755.80
4.4	2.13.2 Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	1	E	935.17	Rupees Nine Hundred and Thirty Five and One Seven paise Only	935.17

4.5	2.14.2 Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	3	E	2371.02	Rupees Two Thousand Three Hundred and Seventy One and Zero Two Paise Only	7113.06
4.6	2.15.3 Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	1	E	3175.15	Rupees Three Thousand One Hundred and Seventy Five and One Five Paise Only	3175.15
4.7	90.10.3.23 Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (RoHS compliant)16A 3 pin plug top	20	E	119.90	Rupees One Hundred and Nineteen and Nine Zero Paise Only	2398.00
4.8	90.16.1.3 Supply and drawing bare earthing conductors of the following sizes along with wiring/ cables and giving connection as required3.15 mm copper conductor (10 SWG)	100	m	57.41	Rupees Fifty Seven and Forty One Paise Only	5741.00

4.9	90.16.5.3 Supply of superior quality copper earth socket for the following size of earth conductor including crimping etc. as required.3.15 mm (10 SWG)	8	E	20.41	Rupees Twenty and Four One Paise Only	163.28
4.10	90.11.1.15 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 required6 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)	1	E	7162.72	Rupees Seven Thousand One Hundred and Sixty Two and Seven Two Paise Only	7162.72

4.11	<p>od254847/2020_2021</p> <p>Supply and installation of switch gear units in sheet steel enclosure complete with handle assembly, door interlock and pad locking arrangement of the following ratings on existing angle iron frame work or directly to wall using necessary bolts and nuts, fixing the unit to wall, making good the damages, colour washing etc including giving necessary connections as required (including cost of HRC fuse links in case of SDF / SDFCO).
63A, 415 V, 50 Hz, AC-23A duty, TPN switch disconnecter fuse unit in sheet steel enclosure.</p>	1	E	4562.27	Rupees Four Thousand Five Hundred and Sixty Two and Two Seven Paise Only	4562.27
4.12	<p>od254848/2020_2021</p> <p>Supplying and fixing 40 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.
Single pole</p>	3	E	400.41	Rupees Four Hundred and Four One Paise Only	1201.23

4.13	od254849/2020_2021 Supply and providing plate earthing as per IS: 3043 with 600 x 600 x 6 mm GI / CI earth plate, 20 mm 2.7 metre long GI watering pipe with drilled holes and fixed to the earth plate with 20 x 3 mm GI clamps, GI funnel with weld mesh at the top, filling with required quantity of charcoal, salt, earth enhancing compound etc. including providing masonry enclosure with cover plate having locking arrangement and the construction of inspection chamber shall be 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 and earth continuity conductor to the plate (in ordinary soil).	1	set	6530.27	Rupees Six Thousand Five Hundred and Thirty and Two Seven Paise Only	6530.27
4.14	od254850/2020_2021 Supply and providing test joint for the earthing system using 2 numbers of the following size of strips including cutting and bending to shape, drilling necessary holes and fixed to the watering pipe etc as required. 2 x 25 x 3 mm tinned copper strip.	0.8	m	569.34	Rupees Five Hundred and Sixty Nine and Thirty Four Paise Only	455.47
4.15	od254851/2020_2021 Supply and providing earth lead from the test joint to the earth electrode using the following size of conductors / strips including cutting, drilling necessary holes (in case of strip) and fixing firmly with plate, test joint etc as required. 25 x 3 mm copper strip tinned at the points of contacts	6	m	420.31	Rupees Four Hundred and Twenty and Three One Paise Only	2521.86

4.16	od254852/2020_2021 Supply and laying the following size of strips laid 0.60 m below ground level including excavating trench of suitable size, refilling, connection / termination with suitable size nuts, bolts, washers etc. as required (in ordinary soil). 25 x 3 mm copper strip tinned at the points of contacts.	10	m	423.83	Rupees Four Hundred and Twenty Three and eight Three Paise Only	4238.30
4.17	90.16.2.5 Supply and laying of the following sizes of B class GI pipe laid 0.6 m below ground level including excavating trench of suitable size and refilling etc, as required.50 mm dia. G.I. pipe (medium class)	10	m	495.17	Rupees Four Hundred and Ninety Five and One Seven Paise Only	4951.70
4.18	od254919/2020_2021 Supply and installation of switch gear units in sheet steel enclosure complete with handle assembly, door interlock and pad locking arrangement of the following ratings on existing angle iron frame work or directly to wall using necessary bolts and nuts, fixing the unit to wall, making good the damages, colour washing etc including giving necessary connections as required (including cost of HRC fuse links in case of SDF / SDFCO).160A, TPN Switch Disconnecter Fuse Unit (Sheet steel enclosur)disconnecter fuse unit in sheet steel enclosure.	1	E	7899.27	Rupees Seven Thousand Eight Hundred and Ninety Nine and Two Seven Paise Only	7899.27

4.19	od254920/2020_2021 Supply and fixing 100 A HRC Fuse Base with HRC Fuse link conforming to IS: 2086 and suitable for 415 V, 50 Hz AC supply in the existing meter board and giving necessary connections as required.	3	E	469.21	Rupees Four Hundred and Sixty Nine and Two One Paise Only	1407.63
4.20	od254921/2020_2021 Supply and fixing 100 A, 415 V, 2-way neutral link mounted on DMC / SMC base in the existing meter board and giving necessary connections as required	1	E	283.41	Rupees Two Hundred and Eighty Three and Four One Paise Only	283.41
4.21	od254922/2020_2021 Supply and fixing 63 A re-wireable type cut-out fuse unit conforming to IS: 2086 and suitable for 415 V, 50 Hz AC supply in the existing meter board and giving necessary connections as required. 	3	E	258.21	Rupees Two Hundred and Fifty Eight and Two One Paise Only	774.63
4.22	90.12.7.13 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.3 core 6 sq mm with factory made clamp	60	m	193.38	Rupees One Hundred and Ninety Three and Three Eight Paise Only	11602.80

4.23	<p>90.12.7.44 Supply, laying and clamping of 1 no. PVC insulated and PVC sheathed armoured aluminium powercable, 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 core 50 sq mm</p>	50	m	485.10	Rupees Four Hundred and Eighty Five and One Zero Paise Only	24255.00
4.24	<p>od254927/2020_2021 Supply and wiring points according to IS: 732-1989 using ISI marked rigid PVC conduit of minimum size 20 mm conforming to IS: 9537 Part-3 1983 and with suitable size specials conforming to IS: 3419-1988, fixing the conduit using metal saddles spacing not exceeding 50 cms or concealed suitably and with ISI marked 1.50 sq. mm PVC insulated stranded single core FRLS copper conductor cable of 650 / 1100 V grade, including providing switch board main and continuous earthing with ISI marked 1.50 sq. mm PVC insulated stranded single core FRLS copper conductor cable 650 / 1100 V grade, required quantity of copper earth socket, brass bolt and nut, crimping / soldering etc complete with suitable size modular type metal switch boxes, modular type front plates (white) etc up to and including 6A modular type 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. (RoHS compliant modular accessories)
Single</p>	2	point	926.79	Rupees Nine Hundred and Twenty Six and Seven Nine Paise Only	1853.58

4.25	od254929/2020_2021 Supplying and fixing 4-pole sheet steel enclosure conforming to IEC: 61439-3 on surface / in recess and suitable for mounting MCB / Isolator complete with connections, testing, commissioning etc. as required.	6	E	405.65	Rupees Four Hundred and Five and Six Five Paise Only	2433.90
4.26	od254930/2020_2021 Supplying and providing earth clamps 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. 25 sq. mm to 95 sq. mm with 20 mm wide x 1.20 mm thick clip.	2	E	36.83	Rupees Thirty Six and Eight Three Paise Only	73.66
4.27	od254931/2020_2021 Supply and providing 25 mm corrugated PVC flexible conduit as required at site.	30	m	24.52	Rupees Twenty Four and Five Two Paise Only	735.60
TOTAL						218704.38
Rounded to						218704.00

PAC Rs2,18,704.00 (Rupees Two Lakh Eighteen Thousand Seven Hundred and Four Only)

I/We agreed to execute the work

1 at Below estimate rate

2 at estimate rate

3. at Above estimate rate

CONTRACTOR

sd/-
UNIVERSITY ENGINEER