

Energy Audit
of
Sacred Heart College (Autonomous)
Tirupattur
2016-2017



by
Department of Physics
Sacred Heart College, Tirupattur

Energy Audit Report of Sacred Heart College(Autonomous), Tirupattur

Report

The Department of Physics, Sacred Heart College, Tirupattur, with the help of staff and students of the department, carried out the Energy audit of Sacred Heart College (Autonomous), Tirupattur during the academic year 2016-2017. The under graduate students of the department of Physics (shift-I) were divided into groups of three and were asked to take a survey of the various electrical appliances in every block of the institution and their average hours of usage per day. To verify the correctness of the data collected, three different groups were sent to every block and the data collected by them were compared. In case of discrepancies, fourth and fifth groups were also sent to the same block and the data in agreement were taken for consideration. From the data, the average power consumed by all the electrical appliances per day and hence per month were calculated for every block. The results obtained are given below.

Buildings considered for study:

1. Main Building
2. Silver Jubilee Building
3. Golden Jubilee Building
4. Library
5. APRC
6. Bi centenary Building
7. St. Joseph Building
8. Diamond Jubilee Building
9. DB Centre
10. BSW Building
11. P. M. Thomas Academy Building
12. Carreno Hall
13. OASIS Hall

14. Don Bosco Indoor Stadium
15. Rinaldi Hostel
16. Murphy Hostel
17. Guezou Hostel
18. Amalagam Hostel
19. Church
20. Gym, Parking Sheds and General toilet (near DBIS)

Sl. No	Building Name	Avg. Energy Consumption per day (KWh)	Avg. Energy Consumption per month (KWh)
1	Main Building	170.21	5106.3
2	Silver Jubilee Building	37.44	1115.85
3	Golden Jubilee Building	74.4845	2234.535
4	Library	90.84	2725.05
5	APRC	146.842	4405.26
6	Bi centenary Building	110.707	3321.21
7	St. Joseph Building	8.425	252.75
8	Diamond Jubilee Building	204.293	6128.79
9	DB Centre	43.125	1293.75
10	BSW Building	37.915	1137.45
11	P. M. Thomas Academy	9.543	286.305
12	Carreno Hall	10.404	312.12
13	OASIS Hall	2.082	62.46
14	Don Bosco Indoor Stadium	10.364	310.92
15	Rinaldi Hostel	160.774	4823.22
16	Murphy Hostel	72.317	2169.51
17	Guezou Hostel	163.5085	4905.255
18	Amalagam Hostel	131.111	3933.33
19	Church	9.465	283.95
20	Gym, Parking Sheds and General toilet (near DBIS)	84.728	2541.84
Total		1578.578 KWh	47349.86 KWh

1. MAIN BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	365	36	13140	13.14	2.6	34.164	1024.92
2	Round bulb	17	60	1020	10.2	1.5	1.53	45.9
3	CFL	18	15	270	0.27	3	0.81	24.3
4	Fan	110	80	8800	8.8	2	17.6	528
5	Table fan	6	80	480	0.48	2	0.96	28.8
6	Computer	179	200	35800	35.8	1	35.8	1074
7	Printer	7	25	175	0.175	0.5	0.0875	2.625
8	Telephone	1	55	55	0.055	10	0.55	16.5
9	Projector	9	350	3150	3.15	0.7	2.205	66.15
10	Water purifier	2	373	746	0.746	10	7.46	223.8
11	Ups 7.5 KVA	2	6000	12000	12	1	12	360
12	Ups 5KVA	1	4000	4000	4	1	4	120
13	Spilt AC	7	900	6300	6.3	0.9	5.67	170.1
14	Window AC	11	750	8250	8.25	1.5	12.375	371.25
15	Exhaust	12	100	1200	1.2	3	3.6	108
16	Xerox machine	2	1380	2760	2.76	3	8.28	248.4
17	Copier & Scanner	1	598	598	0.598	1	0.598	17.94
18	Battery charger	4	200	800	0.8	4	3.2	96
19	Refrigerator	1	400	400	0.4	8	3.2	96
20	Mechanical	2	230	460	0.46	2	0.92	27.6
21	Mercury lamp	3	80	240	0.24	1.5	0.36	10.8
22	Sodium lamp	7	55	385	0.385	1	0.385	11.55
23	Digital balance	2	10	20	0.02	6	0.12	3.6
24	CRO	10	40	400	0.4	0.5	0.2	6
25	Audio oscillator	15	40	600	0.6	0.5	0.3	9
26	VTVM	1	40	40	0.04	0.2	0.008	0.24
27	Water bath	1	100	100	0.1	4	0.4	12
28	Microprocessor	16	100	1600	1.6	1.5	2.4	72
29	Power supply	30	200	6000	6	1	6	180
30	Electromagnet	2	110	220	0.22	2	0.44	13.2
31	Trainer board	12	20	240	0.24	2	0.48	14.4

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
32	Digital gauss meter	2	60	120	0.12	4	0.48	14.4
33	Metallic arc supply	2	80	160	0.16	1	0.16	4.8
34	Stephen const. apparatus	2	100	200	0.2	2	0.4	12
35	Laser source	3	80	240	0.24	2	0.48	14.4
36	Ultrasonic interferometer	2	100	200	0.2	2	0.4	12
37	Magnetic stirrer	2	10	20	0.02	4	0.08	2.4
38	FTIR instrument	1	500	500	0.5	0.5	0.25	7.5
39	UV spectrophotomet	1	500	500	0.5	0.5	0.25	7.5
40	5.1 DTS amplifier	1	1000	1000	1	0.7	0.7	21
41	Mike	2	25	50	0.05	0.7	0.035	1.05
42	UPS	1	1000	1000	1	0.7	0.7	21
43	8 channel mixer	1	250	250	0.25	0.7	0.175	5.25
Total							170.2125	5106.375

2. SILVER JUBILEE BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	106	40	4240	4.24	4	16.96	508.8
2	Fan	66	80	5280	5.28	3.2	16.896	506.88
3	Focus light	1	100	100	0.1	10	1	30
4	Round bulb	7	15	105	0.105	8	0.84	25.2
5	Computer	5	200	1000	1	1	1	30
6	Printer	7	200	1400	1.4	0.2	0.28	8.4
7	Table fan	4	58	232	0.232	2	0.464	13.92
Total							37.44	1115.85

3. GOLDEN JUBILEE BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	116	40	4640	4.64	5	23.2	696
2	Fan	81	80	6480	6.48	4	25.92	777.6
3	Round bulb	5	60	300	0.3	5	1.5	45
4	Computer	4	200	800	0.8	1.4	1.12	33.6
5	Printer	3	200	600	0.6	0.5	0.3	9
6	Copier	1	450	450	0.45	0.5	0.225	6.75
7	Xerox machine	2	1380	2760	2.76	0.5	1.38	41.4
8	Table fan	4	58	232	0.232	3.5	0.812	24.36
9	Split AC	2	900	1800	1.8	8	14.4	432
10	Water purifier	1	100	100	0.1	10	1	30
11	Lift	1	1000	1000	1	2	2	60
12	CCTV unit	1	200	200	0.2	10	2	60
13	Electric bell	1	55	55	0.055	0.5	0.0275	0.825
14	CFL bulb	10	15	150	0.15	4	0.6	18
Total							74.4845	2234.535

4. LIBRARY

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	243	40	9720	9.72	4	38.88	1166.4
2	Fan	50	80	4000	4	4	16	480
3	Computer	75	200	15000	15	1.2	18	540
4	Window AC	3	750	2250	2.25	6	13.5	405
5	Bulb	1	60	60	0.06	8	0.48	14.4
6	Television	1	110	110	0.11	12	1.32	39.6
7	Xerox machine	1	1380	1380	1.38	0.5	0.69	20.7
8	Printer	1	25	25	0.025	0.2	0.005	0.15
9	LCD projector	1	350	350	0.35	0.2	0.07	2.1
10	DVD player	1	100	100	0.1	0.2	0.02	0.6
11	Cutting machine 3 HP	1	3740	3740	3.74	0.5	1.87	56.1
Total							90.84	2725.05

4. APRC BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	128	40	5120	5.12	3	15.36	460.8
2	Fan	90	100	9000	9	1	9	270
3	UPS	1	400	400	0.4	24	9.6	288
4	Printer	9	200	1800	1.8	0.3	0.54	16.2
5	Split AC	1	900	900	0.9	1	0.9	27
6	Bulb	1	150	150	0.15	8	1.2	36
7	Computer	10	200	2000	20	6	12	360
8	Television	1	240	240	0.24	1	0.24	7.2
9	Water purifier	1	350	350	0.35	2	0.7	21
10	Sound system	1	50	50	0.05	1	0.05	1.5
11	DVD player	1	50	50	0.05	1	0.05	1.5
12	AHUJA amplifier	1	220	220	0.22	1	0.22	6.6
13	Uni sound amplifier	1	460	460	0.46	1	0.46	13.8
14	Bulb	16	15	240	0.24	8	1.92	57.6
15	Pump motor 5HP	3	3730	11190	11.19	1.5	16.785	503.55
16	Grinder motor 1.5 HP	1	1119	1119	1.119	1	1.119	33.57
17	Pump Motor	2	1119	2238	2.238	1	2.238	67.14
18	Inverter	2	600	1200	1.2	2	2.4	72
19	Bulb	9	15	135	0.135	8	1.08	32.4
20	Digital balance	1	20	20	0.02	1	0.02	0.6
21	Impedance analyzer	1	110	110	0.11	1	0.11	3.3
22	He-Ne laser	1	100	100	0.1	1	0.1	3
23	Bridgeman set up	2	500	1000	1	1	1	30
24	Furnace	2	1500	3000	3	4	12	360
25	Hot air oven	3	1000	3000	3	10	30	900
26	Water bath	3	400	1200	1.2	12	14.4	432
27	Magnetic stirrer	5	10	50	0.05	10	0.5	15
28	Centrifuge set	1	100	100	0.1	1	0.1	3
29	Ultrasonicator	1	400	400	0.4	1	0.4	12
30	Dilatation unit	1	750	750	0.75	1	0.75	22.5
31	Melting point analyzer	1	400	400	0.4	1	0.4	12
32	Invertor	1	600	600	0.6	2	1.2	36
33	Refrigerator	1	400	400	0.4	24	9.6	288
34	Mixer	1	400	400	0.4	1	0.4	12
Total							146.84	4405.26

6. DON BOSCO BICENTENARY BLOCK

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	162	36	5832	5.832	6	34.992	1049.76
2	Fan	186	40	7440	7.44	6	44.64	1339.2
3	Focus light	1	80	80	0.08	8	0.64	19.2
4	Round bulb	12	5	60	0.06	8	0.48	14.4
5	Computer system	11	200	5280	5.28	2	10.56	316.8
6	Printer	6	20	120	.12	0.4	0.048	1.44
7	Table fan	2	58	116	0.116	2	0.232	6.96
8	Projector	17	350	5950	5.95	0.5	2.975	89.25
9	LED bulb	1	5	5	0.005	8	0.04	1.2
10	Wi-Fi	7	20	140	0.14	10	1.4	42
11	Speaker	3	100	300	0.3	1	0.3	9
12	Water purifier	1	600	600	0.6	24	14.4	432
Total							110.707	3321.21

7. St. JOSEPH'S BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	13	40	520	0.52	1	0.52	15.6
2	Fan	20	80	1600	1.6	1	1.6	48
3	CFL	9	15	135	0.135	1	0.135	4.05
4	Heater	5	200	1000	1	1	1	30
5	Split AC	4	900	3600	3.6	1	3.6	108
6	Bulb	18	40	720	0.72	1	0.72	21.6
7	Inverter	1	850	850	0.85	1	0.85	25.5
Total							8.425	252.75

8. DIMOND JUBILEE BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	131	55	7205	7.205	3	21.615	648.45
2	Fan	109	58	6322	6.322	3	18.966	568.98
3	LCD projector	12	350	4200	4.2	0.5	2.1	63
4	Round bulb	7	60	420	0.42	6	2.52	75.6
5	Computer system	152	200	30400	30.4	2	60.8	1824
6	Printer	4	20	80	0.8	0.3	0.024	0.72
7	Table fan	2	50	100	0.1	2	0.2	6
8	Wi- Fi	6	20	120	0.12	24	2.88	86.4
9	CFL bulb	7	15	105	0.105	6	0.63	18.9
10	CCTV unit	1	200	200	0.2	10	2	60
11	Water purifier	1	375	375	0.375	10	3.75	112.5
12	Centralized AC	1	20000	20000	40	2	80	2400
13	AC 5 ton	1	4000	4000	4	2	8	240
14	Electric bell	1	40	40	0.04	0.2	0.008	0.24
15	Lift	2	400	800	0.8	1	0.8	24
Total							204.293	6128.79

9. DB CENTRE

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	60	40	2400	2.4	2	4.8	144
2	Fan	43	80	3440	3.44	2	6.88	206.4
3	Bulb	6	60	360	0.36	2	0.72	21.6
4	Computer system	47	200	9400	9.4	2	18.8	564
5	Television	2	110	220	0.22	2	0.44	13.2
6	Tape recorder	3	80	240	0.24	0.5	0.12	3.6
7	Split AC	9	750	6750	6.75	0.8	5.4	162
8	Refrigerator	1	400	400	0.4	10	4	120
9	CFL	15	15	225	0.225	8	1.8	54
10	Counting machine	1	150	150	0.15	1	0.15	4.5
11	Printer	3	25	75	0.075	0.2	0.015	0.45
Total							43.125	1293.75

10. BSW BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	87	40	3480	3.48	3	10.44	313.2
2	Fan	72	80	5760	5.76	3	17.28	518.4
3	Bulb	44	15	660	0.66	2	1.32	39.6
4	Computer system	7	200	1400	1.4	0.8	1.12	33.6
5	DeskJet printer	2	25	50	0.05	0.5	0.025	0.75
6	Laser printer	1	20	20	0.02	0.5	0.01	0.3
7	Dot matrix printer	1	20	20	0.02	0.5	0.01	0.3
8	Water purifier	1	375	375	0.375	10	3.75	112.5
9	Focus light	1	250	250	0.25	8	2	60
10	Tennis court light	12	400	4800	4.8	0.2	0.96	28.8
11	Tailoring motor	5	200	1000	1	1	1	30
Total							37.915	1137.45

11. P M THOMAS ENGLISH ACADEMY BUILDING

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	20	40	800	0.8	4	3.2	96
2	Fan	15	80	1200	1.2	4	4.8	144
3	Round bulb	7	60	420	0.42	2	0.84	25.2
4	Computer system	5	200	1000	1	0.5	0.5	15
5	Printer	7	25	175	0.175	0.5	0.0875	2.625
6	Table fan	4	58	232	0.232	0.5	0.116	3.48
Total							9.5435	286.305

12. CARRENO HALL

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	40	36	1440	1.44	0.9	1.296	38.88
2	Fan	15	80	1200	1.2	0.9	1.08	32.4
3	CFL	39	15	585	0.585	0.9	0.5265	15.795
4	Bulb	2	60	120	0.12	0.9	0.108	3.24
5	DVD player	1	100	100	0.1	0.9	0.09	2.7
6	Focus light	2	500	1000	1	0.9	0.9	27
7	Focus light	10	400	4000	4	0.9	3.6	108
8	Amplifier	1	1000	1000	1	0.9	0.9	27
9	Amplifier	1	1500	1500	1.5	0.9	1.35	40.5
10	Mixer	1	100	100	0.1	0.9	0.09	2.7
11	Mike	3	55	165	0.165	0.9	0.1485	4.455
12	LCD projector	1	350	350	0.35	0.9	0.315	9.45
Total							10.404	312.12

13. OASIS

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	5	40	200	0.2	1.2	0.24	7.2
2	Fan	8	80	640	0.64	1.2	0.768	23.04
3	CFL	8	20	160	0.16	1.2	0.192	5.76
4	Round bulb	2	15	30	0.03	1.2	0.036	1.08
5	LCD projector	1	350	350	0.35	1.2	0.42	12.6
6	Mike	1	55	55	0.055	1.2	0.066	1.98
7	Amplifier	1	300	300	0.3	1.2	0.36	10.8
Total							2.082	62.46

14. DBIS

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	68	40	2720	2.72	0.8	2.176	65.28
2	Fan	58	80	4640	4.64	0.8	3.712	111.36
3	White focus light	19	120	2280	2.28	0.8	1.824	54.72
4	Power amplifier	2	1000	2000	2	0.8	1.6	48
5	DVD player	1	200	200	0.2	0.8	0.16	4.8
6	Audio mixer	2	100	200	0.2	0.4	0.08	2.4
7	UPS	1	750	750	0.75	0.8	0.6	18
9	Amplifier	1	100	100	0.1	0.8	0.08	2.4
10	Microphone	3	55	165	0.165	0.8	0.132	3.96
Total							10.364	310.92

15. RINALDI HOSTEL

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	140	40	5600	5.6	6	33.6	1008
2	Fan	106	80	8480	8.48	10	84.8	2544
3	CFL	18	15	270	0.27	8	2.16	64.8
4	Television	1	400	400	0.4	1	0.4	12
5	Heater	1	1000	1000	1	2	2	60
6	Computer system	1	200	200	0.2	2	0.4	12
7	Pump Motor(7.5hp)	1	5595	5595	5.595	2	11.19	335.7
8	Pump Motor(5hp)	1	3730	3730	3.73	2	7.46	223.8
9	Pump Motor(1.5hp)	1	1119	1119	1.119	2	2.238	67.14
10	UPS(500va)	1	500	500	0.5	2	1.0	30
11	Printer	1	25	25	0.2	0.5	0.1	3
12	Amplifier	1	250	250	0.25	1	0.25	7.5
13	Grinder(3hp)	2	2238	4476	4.476	1	4.476	134.28
14	Inverter(850va)	1	850	850	0.85	2	1.7	51
15	Water purifier(1.5hp)	1	375	375	0.375	24	9	270
Total							160.774	4823.22

16. MURPHY HOSTEL

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	73	40	2920	2.92	8	23.36	700.8
2	Fan	56	80	4480	4.48	8	35.84	1075.2
3	Television	1	400	400	0.4	2	0.8	24
4	Bulb	22	15	330	0.33	3	0.99	29.7
5	Exhaust fan	1	100	100	0.1	3	0.3	9
6	Bulb	36	15	540	0.54	5	2.7	81
7	Computer system	1	200	200	0.2	2	0.4	12
9	Amplifier	1	250	250	0.25	1	0.25	7.5
10	Speaker	8	250	2000	2	2	4	120
11	Electric bell	1	55	55	0.055	1	0.055	1.65
12	CFL	3	15	84	0.84	3	0.252	7.56
13	Printer	1	20	20	0.02	0.5	0.01	0.3
14	Grinder (2hp)	1	400	400	0.4	2	0.8	24
15	Mixer	1	100	100	0.1	1	0.1	3
16	Clock	1	40	40	0.04	24	0.96	28.8
17	Pump Motor (3hp)	1	500	500	0.5	3	1.5	45
Total							72.317	2169.51

17. GUEZUO HOSTEL

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	127	40	5080	5.08	6.5	33.02	990.6
2	Fan	121	80	9680	9.68	8	77.44	2323.2
3	Bulb	71	15	1065	1.065	12	12.78	383.4
4	Television	1	400	400	0.4	1	0.4	12
5	Computer system	1	200	200	0.2	1	0.2	6
6	Pump Motor (7.5hp)	1	5595	5595	5.595	2	11.19	335.7
7	Pump Motor (2hp)	1	1492	1492	1.492	2	2.984	89.52
8	Pump Motor (5hp) bore	1	3730	3730	3.73	2	7.46	223.8
9	Water purifier(2hp)	1	1492	1492	1.492	6	8.952	268.56
10	Grinder motor	2	3740	7480	7.48	1	7.48	224.4
11	Amplifier	1	230	230	0.23	1	0.23	6.9
12	Printer	1	25	25	0.025	0.5	0.0125	0.375
13	Heater	1	400	400	0.4	1	0.4	12
14	Electronic clock	1	40	40	0.04	24	0.96	28.8
Total							163.5085	4905.255

18. AMALAGAM HOSTEL

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	105	40	4200	4.2	6	25.2	756
2	Fan	100	80	8000	8	8	64	1920
3	Bulb	23	15	345	0.345	8	2.76	82.8
4	CFL	47	15	705	0.705	2	1.41	42.3
5	Computer system	1	200	200	0.2	1	0.2	6
6	Bulb	2	60	120	0.12	8	0.96	28.8
7	Pump Motor(3hp)	2	2238	4476	4.476	2	8.952	268.56
8	Pump Motor(5hp)	1	3730	3730	3.73	2	7.46	223.8
9	Amplifier	1	250	250	0.25	1	0.25	7.5
10	Grinder(1.5hp)	1	1119	1119	1.119	1	1.119	33.57
11	Refrigerator	1	400	400	0.4	24	9.6	288
12	Mixer	1	400	400	0.4	0.5	0.2	6
13	Water purifier	1	375	375	0.375	24	9	270
Total							131.111	3933.33

19. CHURCH

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	38	40	1520	1.52	1	1.52	45.6
2	Fan	19	80	1520	1.52	1	1.52	45.6
3	Focus light	6	540	3240	3.24	1	3.24	97.2
4	Focus light	8	320	2560	2.56	1	2.56	76.8
5	DVD player	1	100	100	0.1	1	0.1	3
6	Amplifier	1	125	125	0.125	1	0.125	3.75
7	Amplifier	1	250	250	0.25	1	0.25	7.5
8	Focus light	1	150	150	0.15	1	0.15	4.5
Total							9.465	283.95

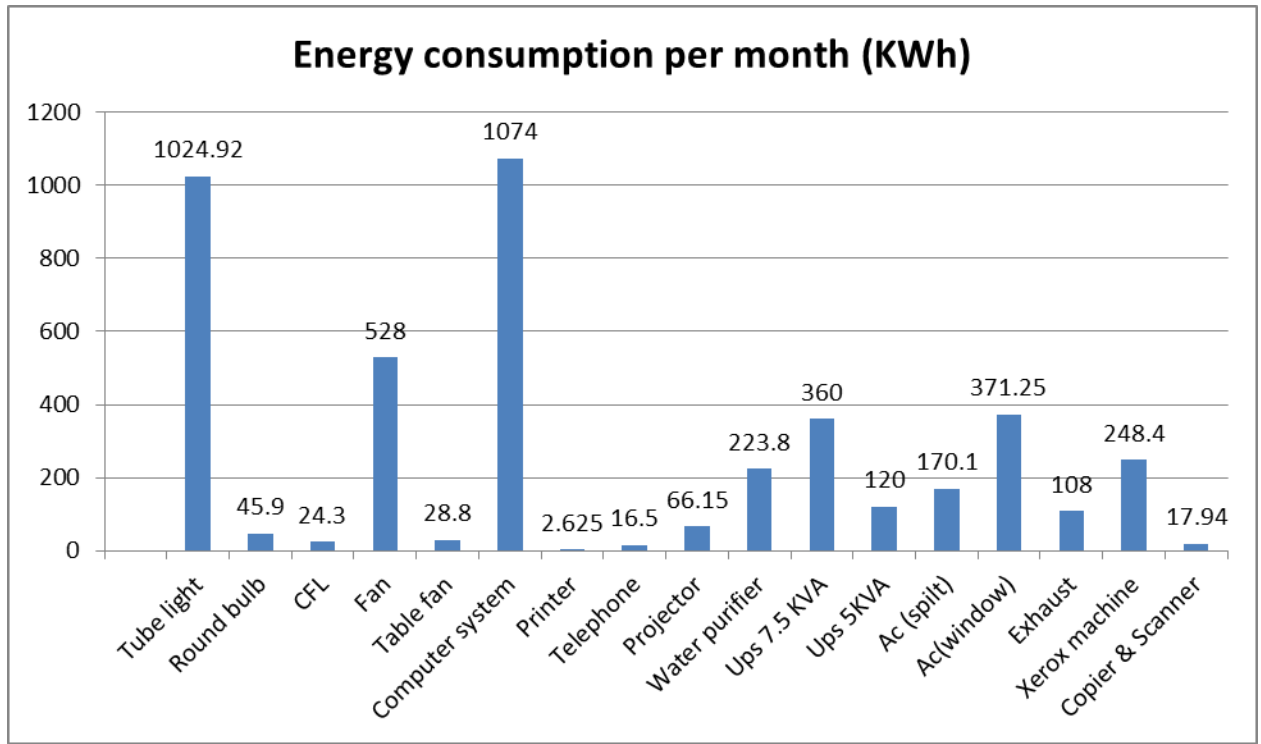
20. GYM, PARKING SHEDS AND GENERAL TOILET (NEAR DBIS)

S. No	Name of the equipment	No. of quantity	Watts specification	Total power consumption (W)	Total power consumption (KW)	Hours of usage per day	Energy consumption per day (KWh)	Energy consumption per month (KWh)
1	Tube light	25	40	1000	1	4	4	120
2	Fan	10	80	800	0.8	2	1.6	48
3	Round bulb	12	400	4800	4.8	2	9.6	288
4	Focus light	13	1000	13000	13	2	26	780
5	Focus light	1	150	150	0.15	8	1.2	36
6	Focus light	2	100	200	0.2	8	1.6	48
7	Focus light	2	50	100	0.1	8	0.8	24
8	Bulb	21	18	378	0.378	8	3.024	90.72
9	Bulb	42	5	210	0.21	8	1.68	50.4
10	Pump Motor 3hp	3	2238	6714	6.714	2	13.428	402.84
11	Pump Motor 7.5hp	1	5595	5595	5.595	2	11.19	335.7
12	Pump Motor 5hp	1	3730	3730	3.73	2	7.46	223.8
13	Carpenter motor	4	400	1600	1.6	1	1.6	48
14	Electrician motor	2	400	800	0.8	1	0.8	24
15	Septic water motor	1	1492	1492	1.492	0.5	0.746	22.38
Total							84.728	2541.84

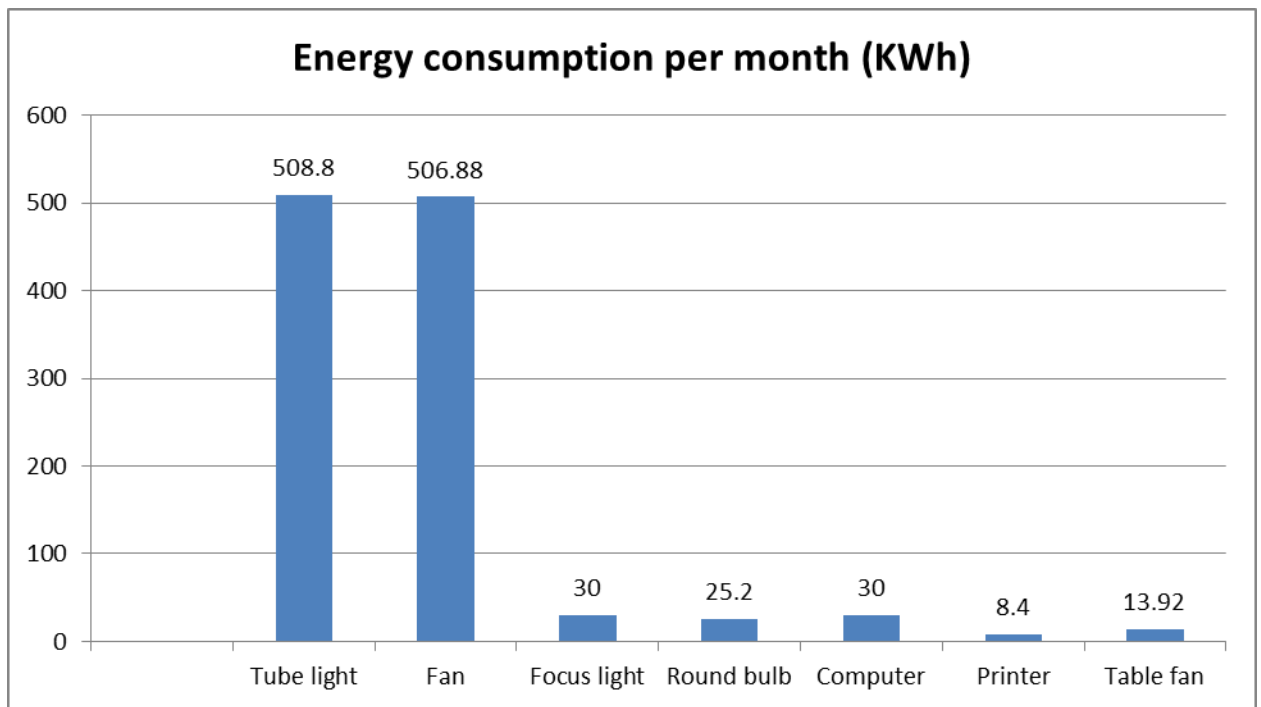
MAJOR POWER CONSUMED BY ELECTRICAL APPLIANCES (BLOCK VISE) per day (KWh)					
Building Name	TUBE LIGHT	FAN	AC	MOTOR	FOCUS LIGHT
Main Block	34.164	17.6	17.9	-	-
Silver Jubilee	16.96	16.896	-	-	1
Golden Jubilee	23.2	25.92	14.2	-	-
Library	38.88	16	13.5	-	-
APRC	15.36	9	0.9	16.78	-
Don Bosco Bicentenary Block	34.992	44.64	-	-	0.64
St. Joseph's Block	0.52	1.6	3.6	-	-
Dimond Jubilee Block	21.615	18.966	80	-	-
DB Centre	4.8	6.88	5.4	-	-
BSW	10.44	17.28	-	1	2
P M Thomas English Academy Block	3.2	4.8	-	-	-
Carreno Hall	1.296	1.08	-	-	4.5
OASIS	0.24	0.768	-	-	-
DB Centre	2.176	3.71	-	-	1.82
Rinaldi Hostel	33.6	84.8	-	20.888	-
Murphy Hostel	23.36	35.84	-	1.5	-
Guezuo Hostel	33.02	77.44	-	21.164	-
Amalagam Hostel	25.2	64	-	16.412	-
Church	1.52	1.52	-	-	4.91
Gym, Parking Sheds and General toilet (near DBIS)	4	-	-	32.078	28.8

MAJOR POWER CONSUMED BY ELECTRICAL APPLIANCES (BLOCK VISE) per month (KWh)					
Building Name	TUBE LIGHT	FAN	AC	MOTOR	FOCUS LIGHT
MAIN BLOCK	1024.92	528	541.3	-	-
SILVER JUBILEE	508.8	506.88	-	-	30
GOLDEN JUBILEE	696	777.6	432	-	-
LIBRARY	1166.4	480	405	-	-
APRC	460.8	270	27	503.55	-
DON BOSCO BICENTENARY BLOCK	1049.76	1339.2	-	-	19.2
ST. JOSEPH'S BLOCK	15.6	48	108	-	-
DIMOND JUBILEE BLOCK	648.45	568.98	2400	-	-
DB CENTRE	144	206.4	162	-	-
BSW	313.2	518.4	-	30	60
P M Thomas English Academy Block	96	144	-	-	-
CARRENO HALL	38.88	32.4	-	-	135
OASIS	7.2	23.04	-	-	-
DB CENTRE	65.2	111.36	-	-	54.72
RINALDI HOSTEL	1008	2544	-	626.64	-
MURPHY HOSTEL	700.8	1075.2	-	45	-
GUEZUO HOSTEL	990.6	2323.2	-	634.92	-
AMALAGAM	756	1920	-	492.36	-
CHURCH	45.6	45.6	-	-	147.3
CAMPUS	120	-	-	961.34	864

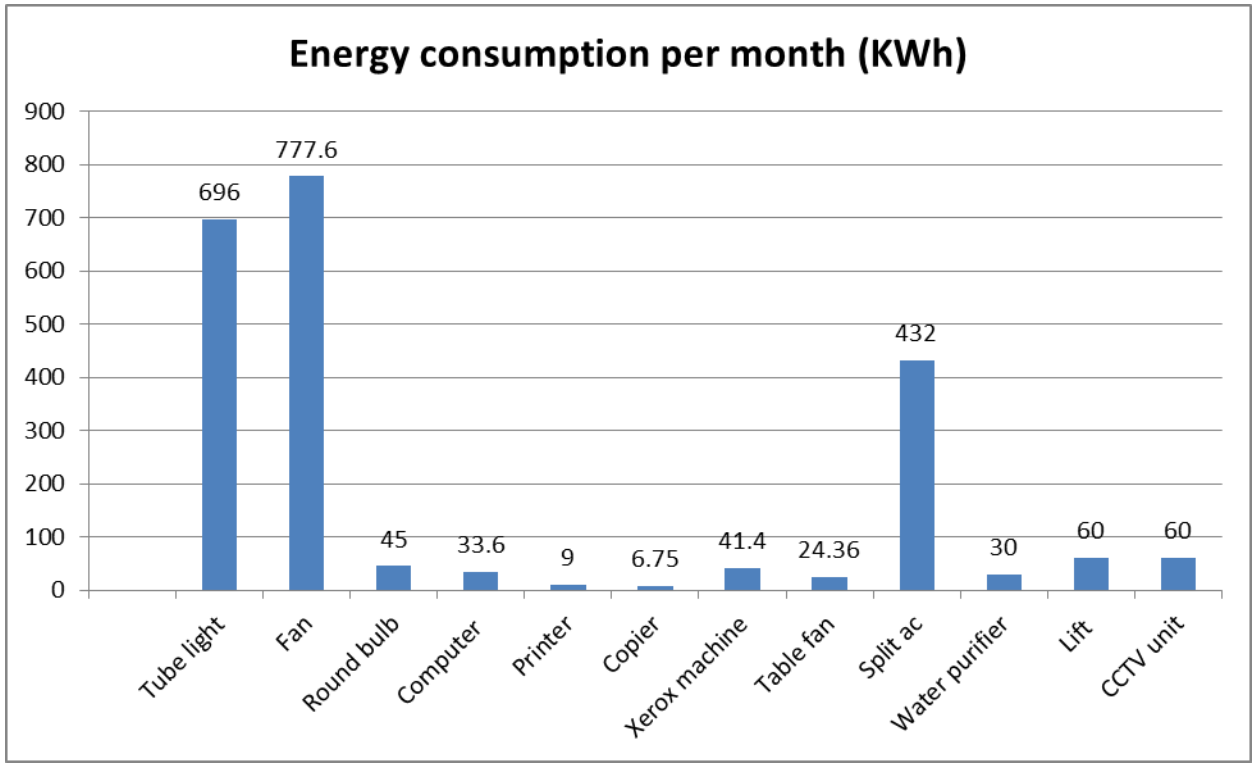
1. MAIN BUILDING



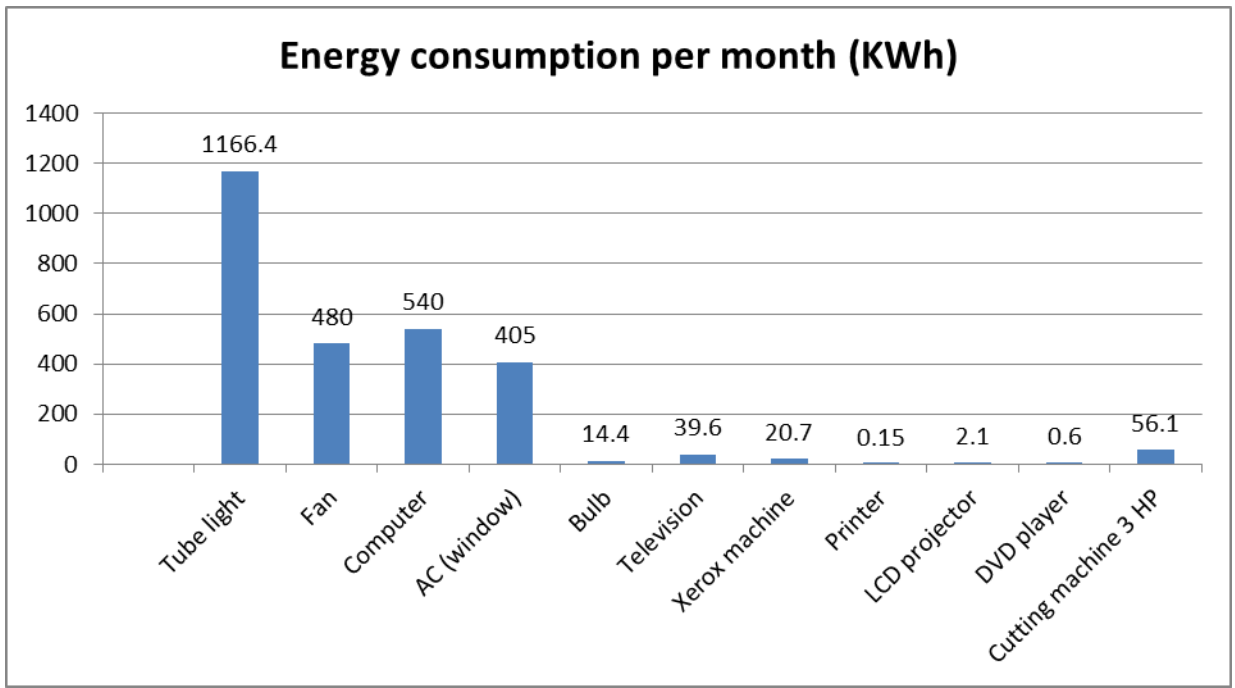
2. SILVER JUBILEE BUILDING



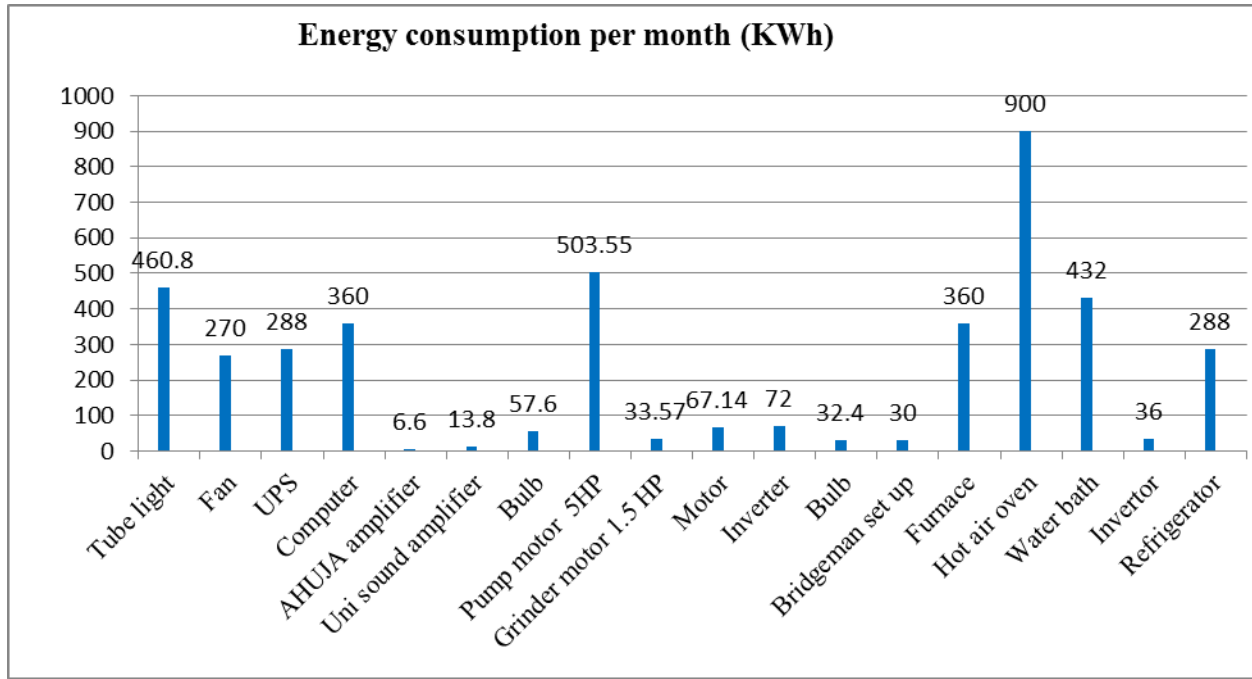
3. GOLDEN JUBILEE BUILDING



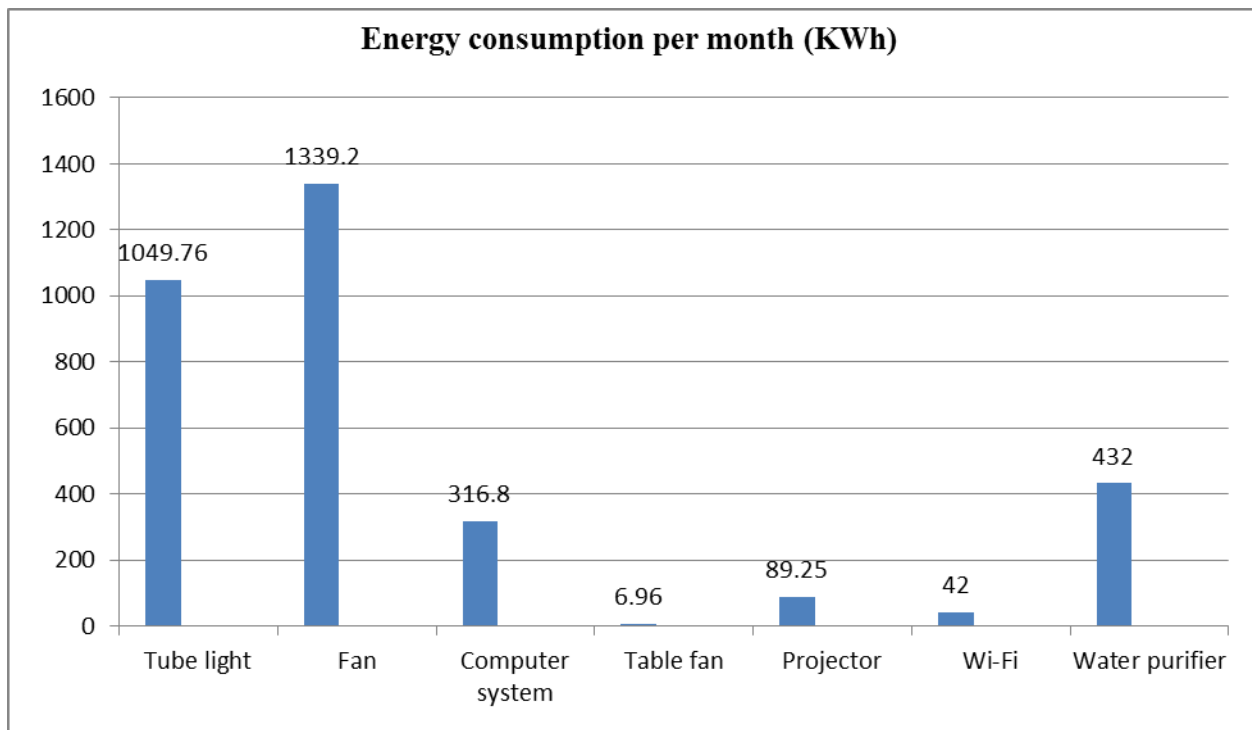
4. LIBRARY



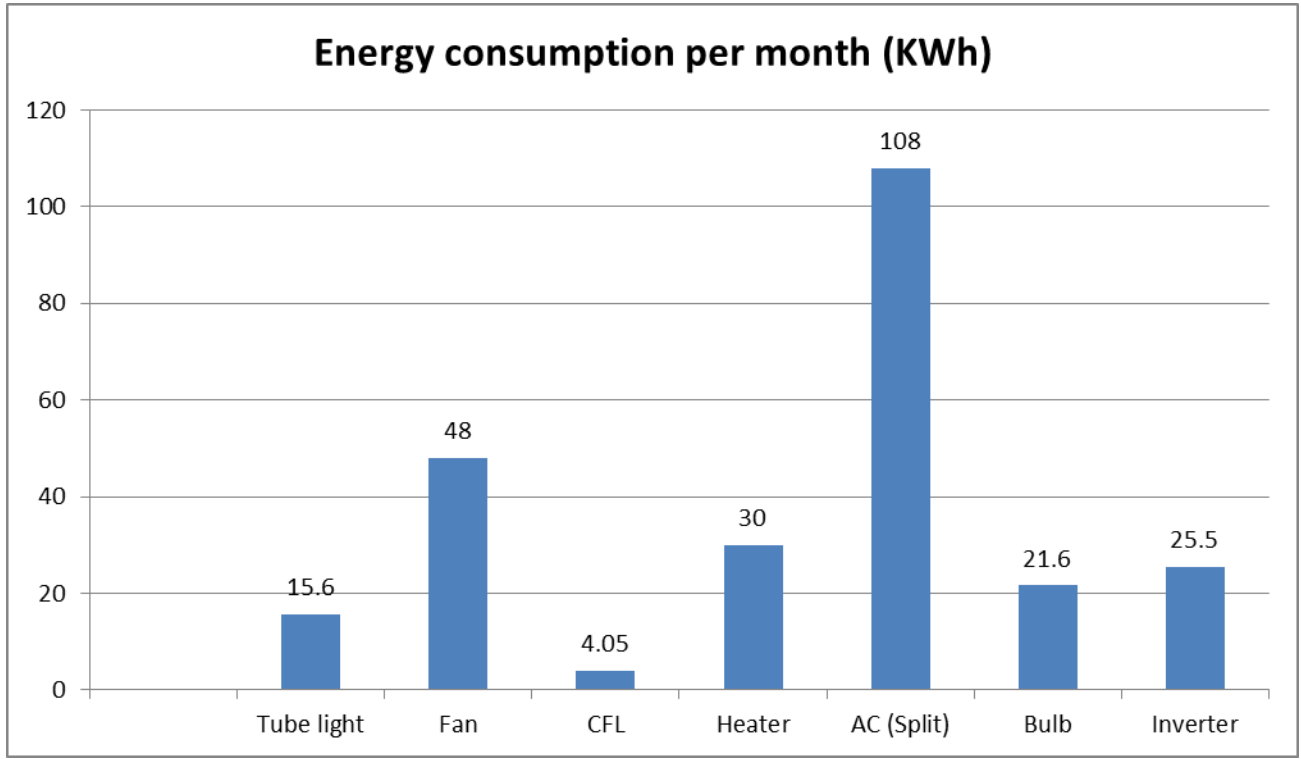
5. APRC BUILDING



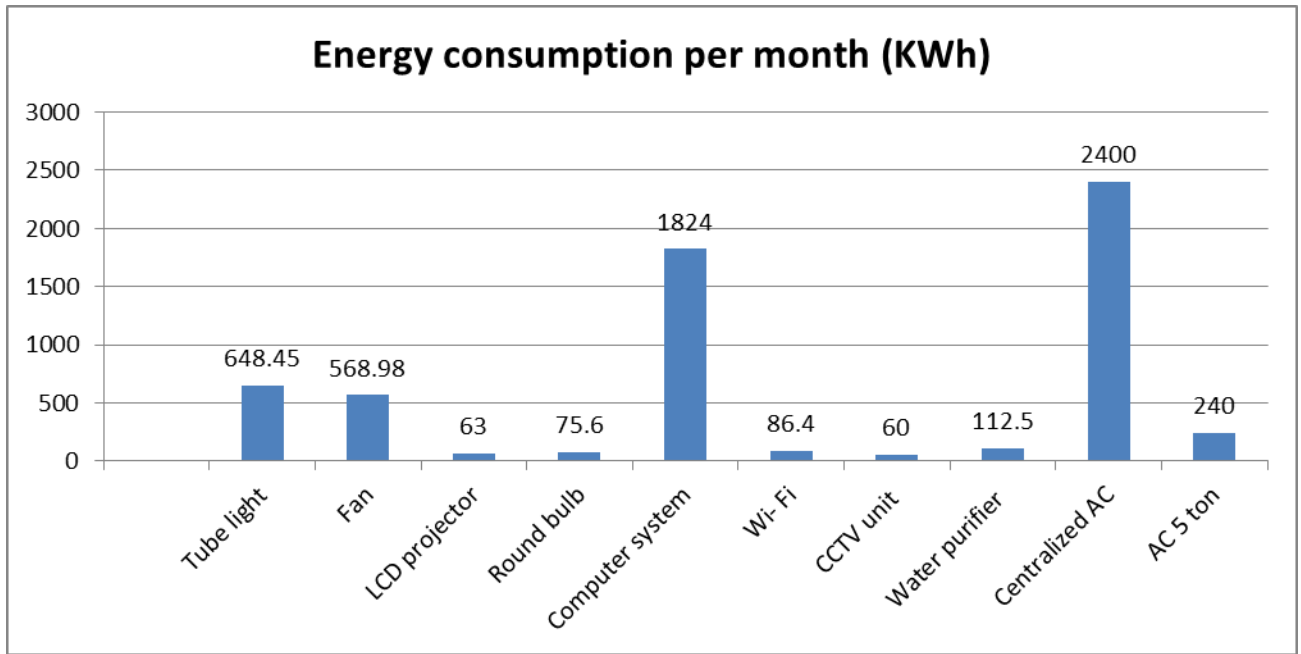
6. DON BOSCO BICENTENARY BLOCK



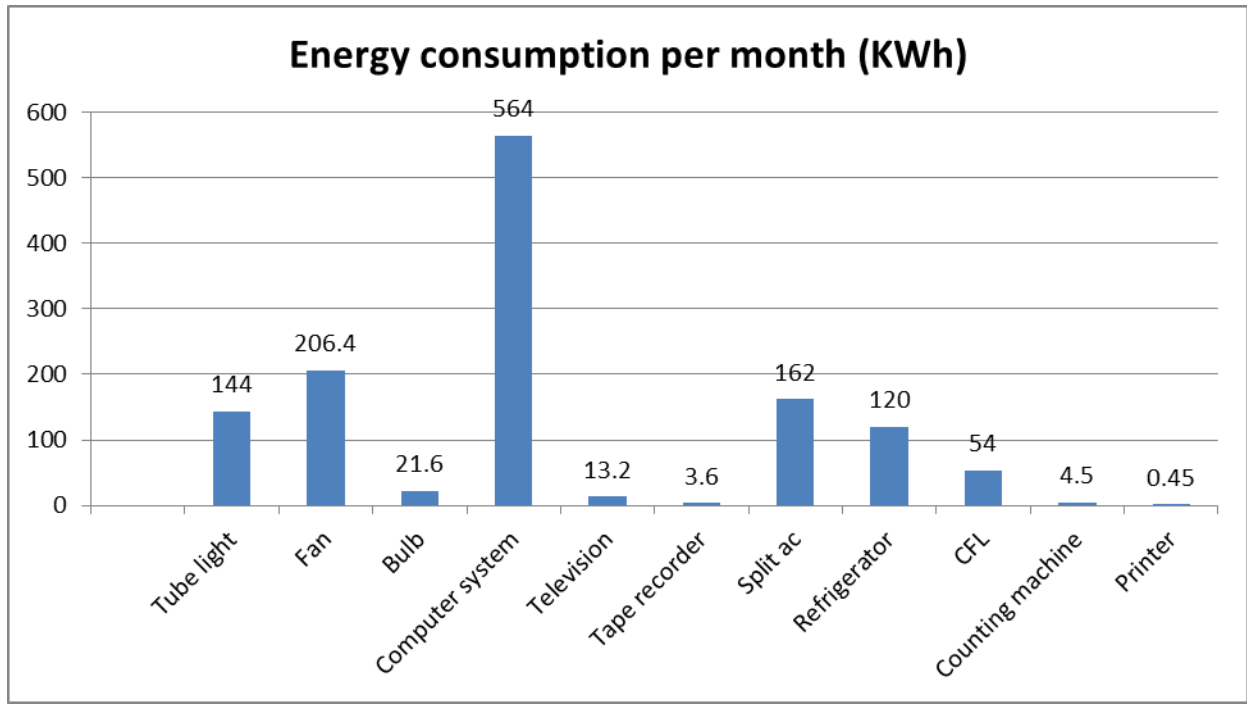
7. St. JOSEPH'S BUILDING



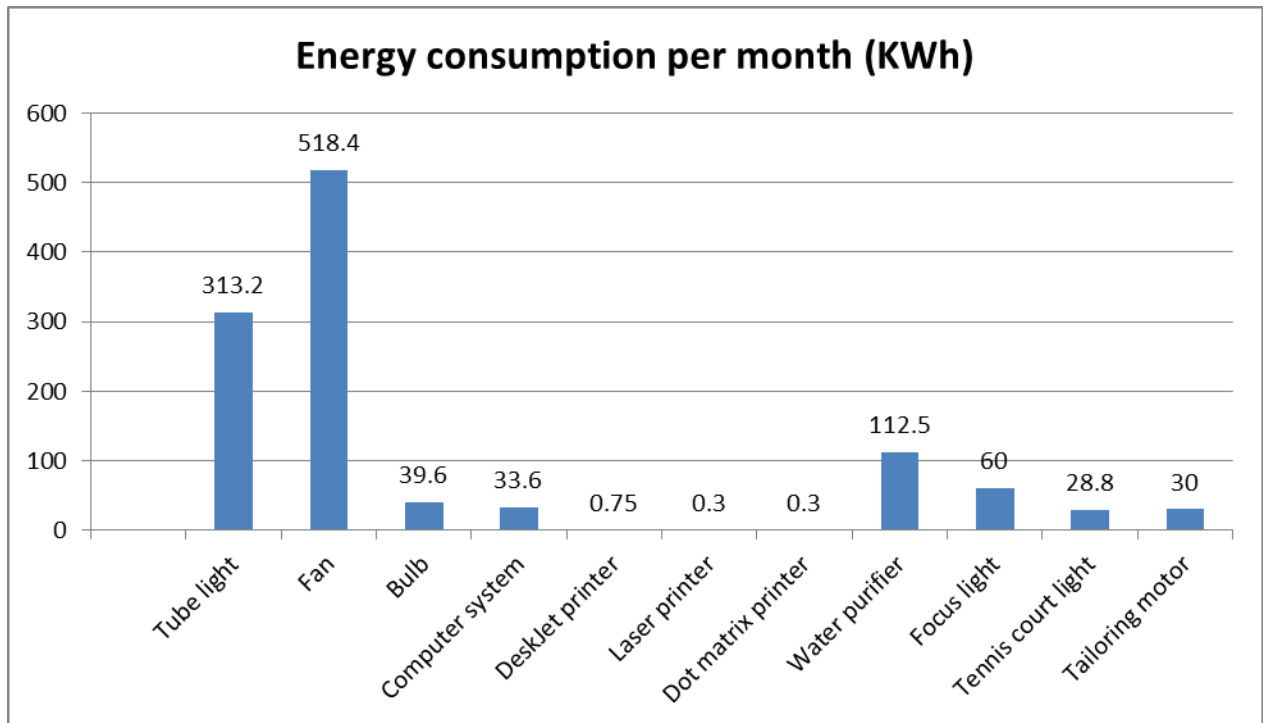
8. DIMOND JUBILEE BUILDING



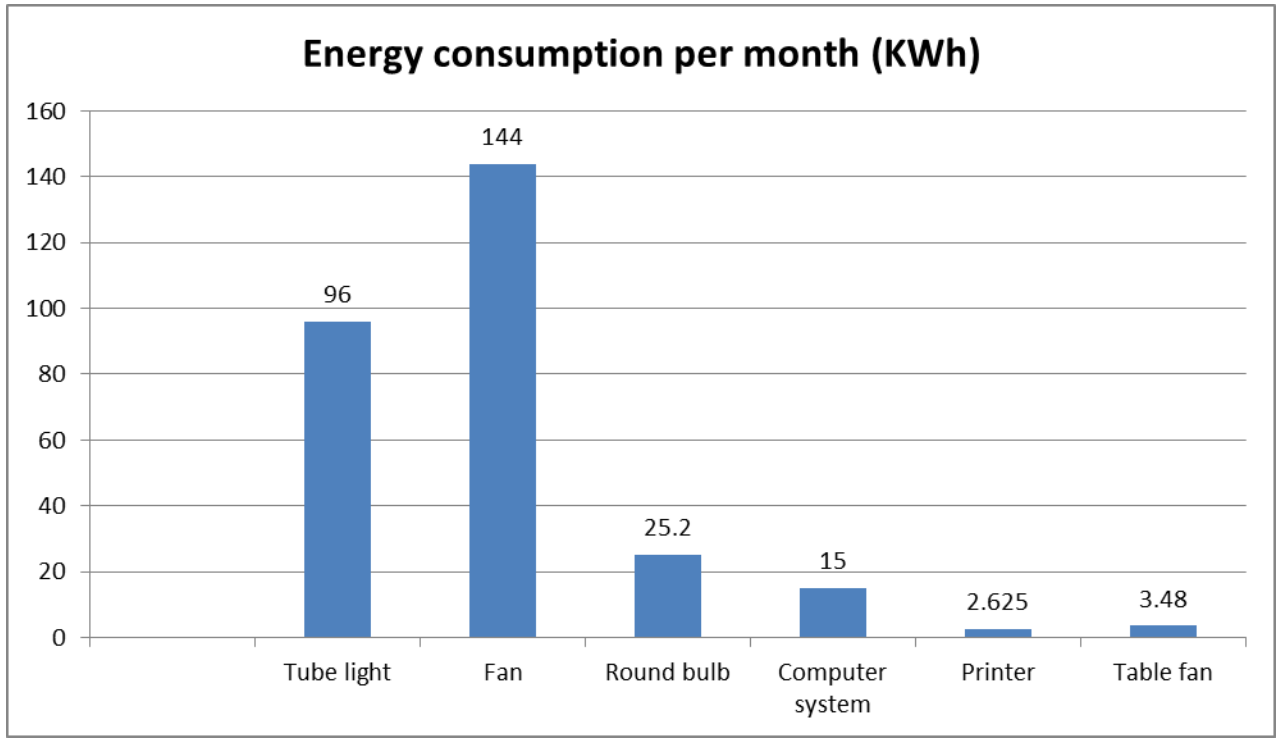
9. DB CENTRE



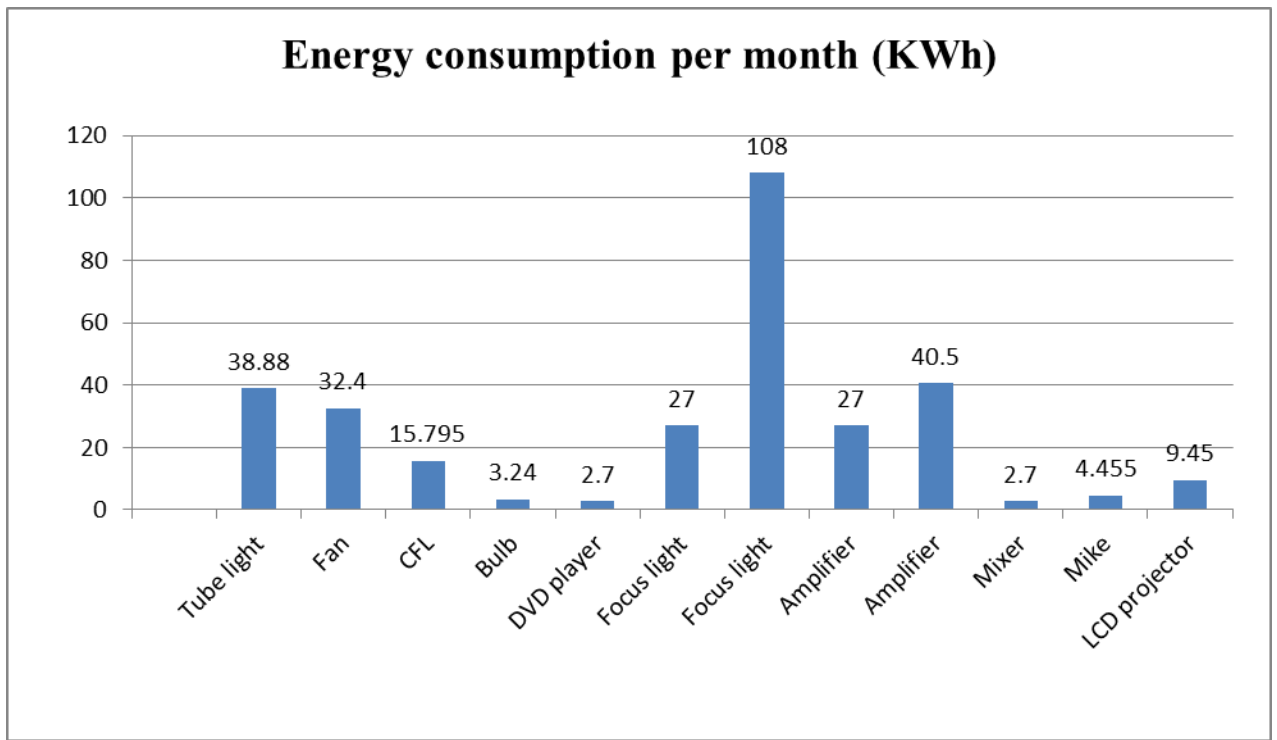
10. BSW BUILDING



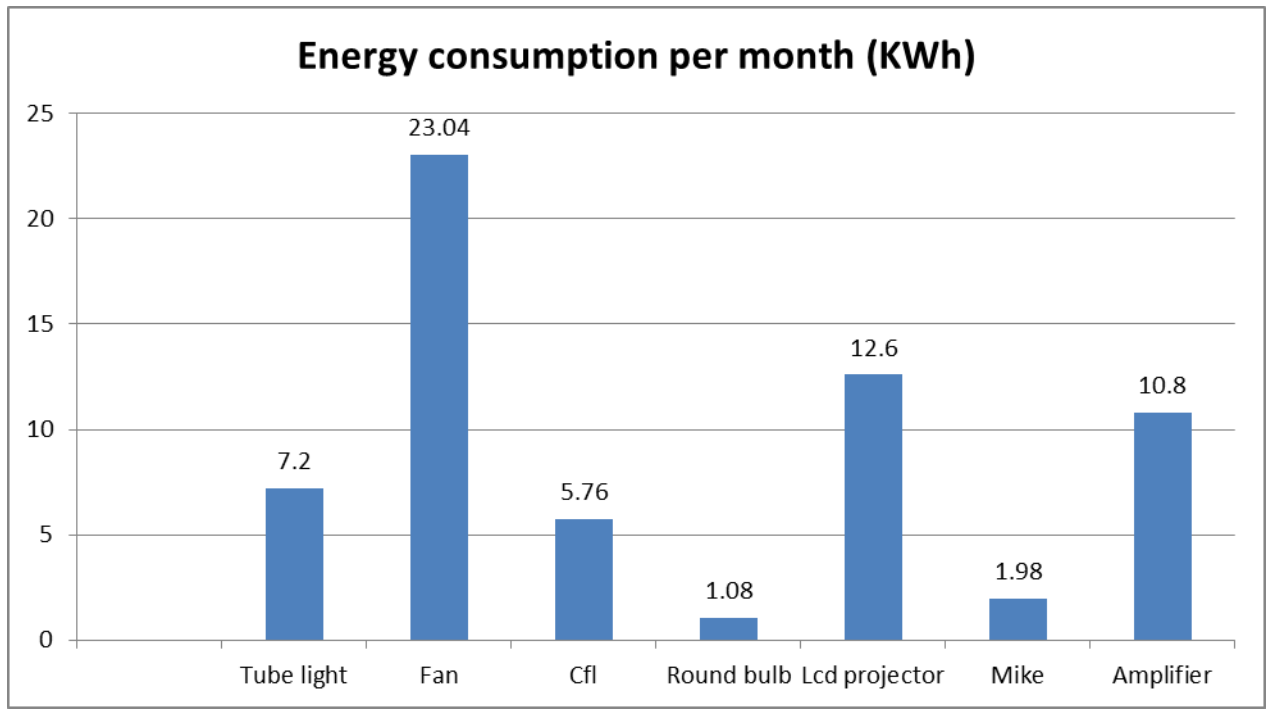
11. P M THOMAS ENGLISH ACADEMY BUILDING



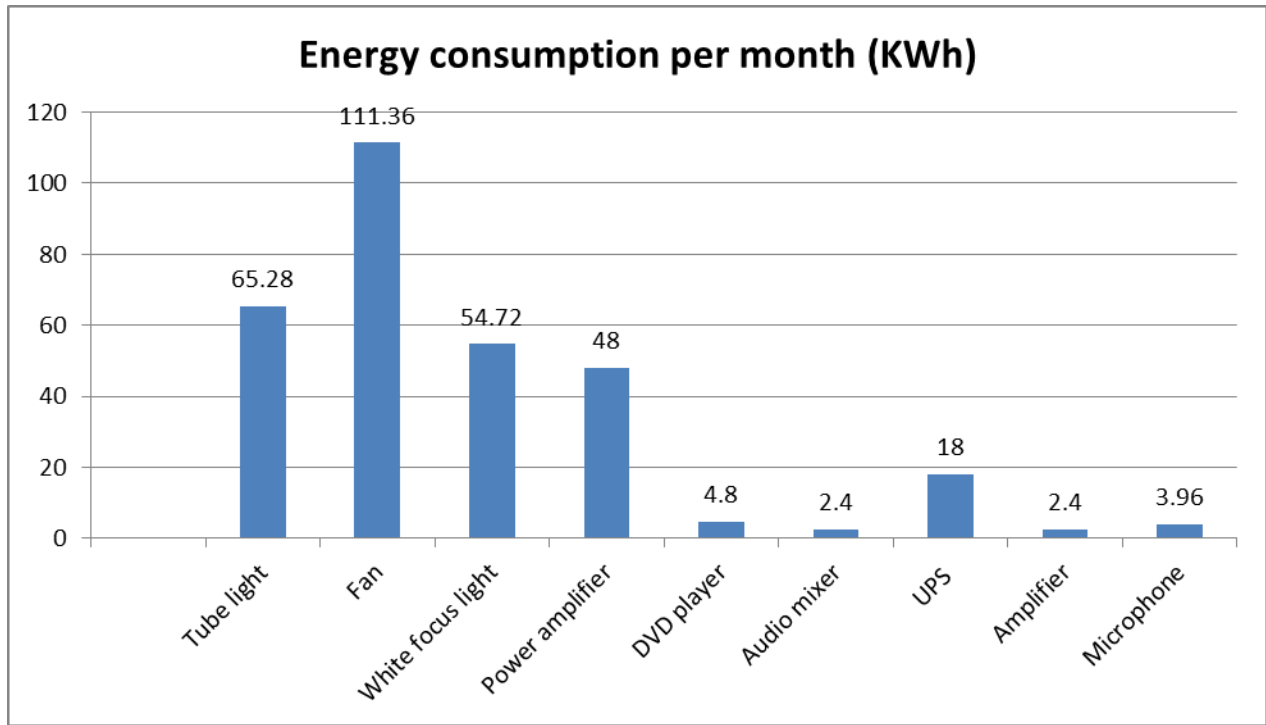
12. CARRENO HALL



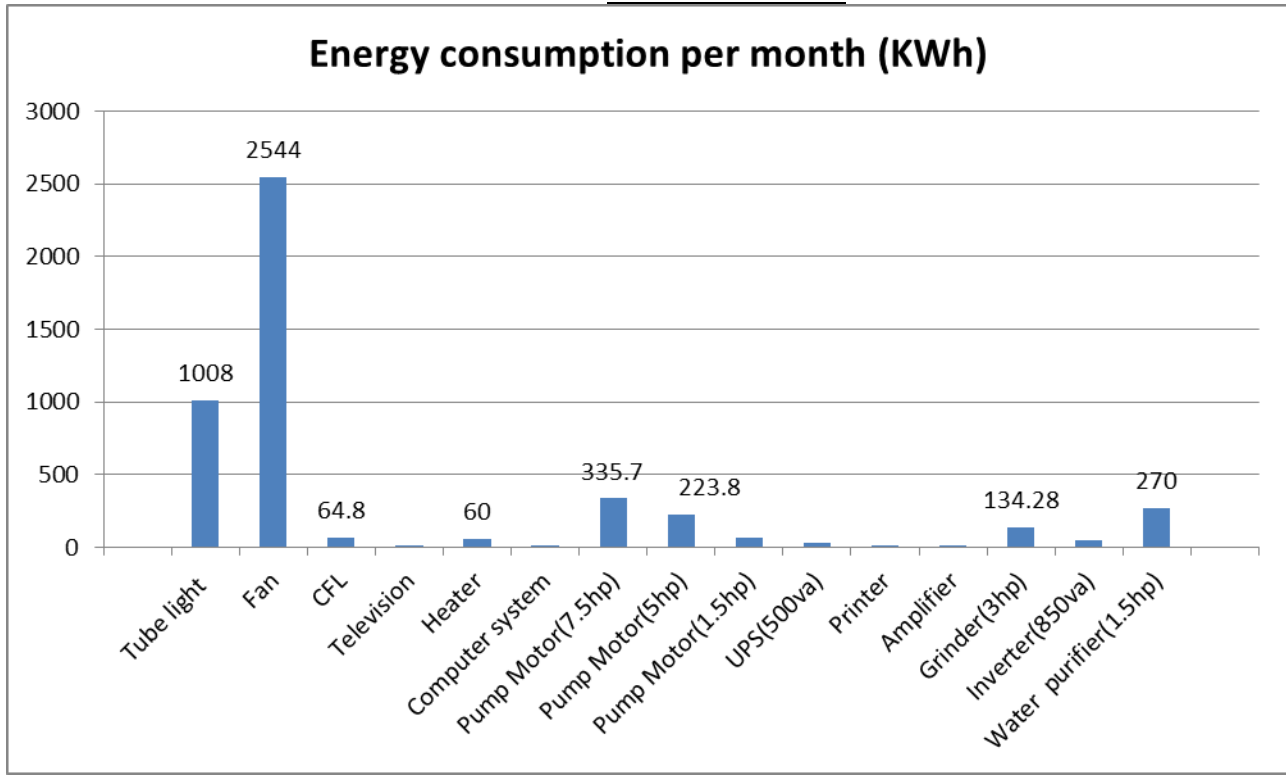
13. OASIS HALL



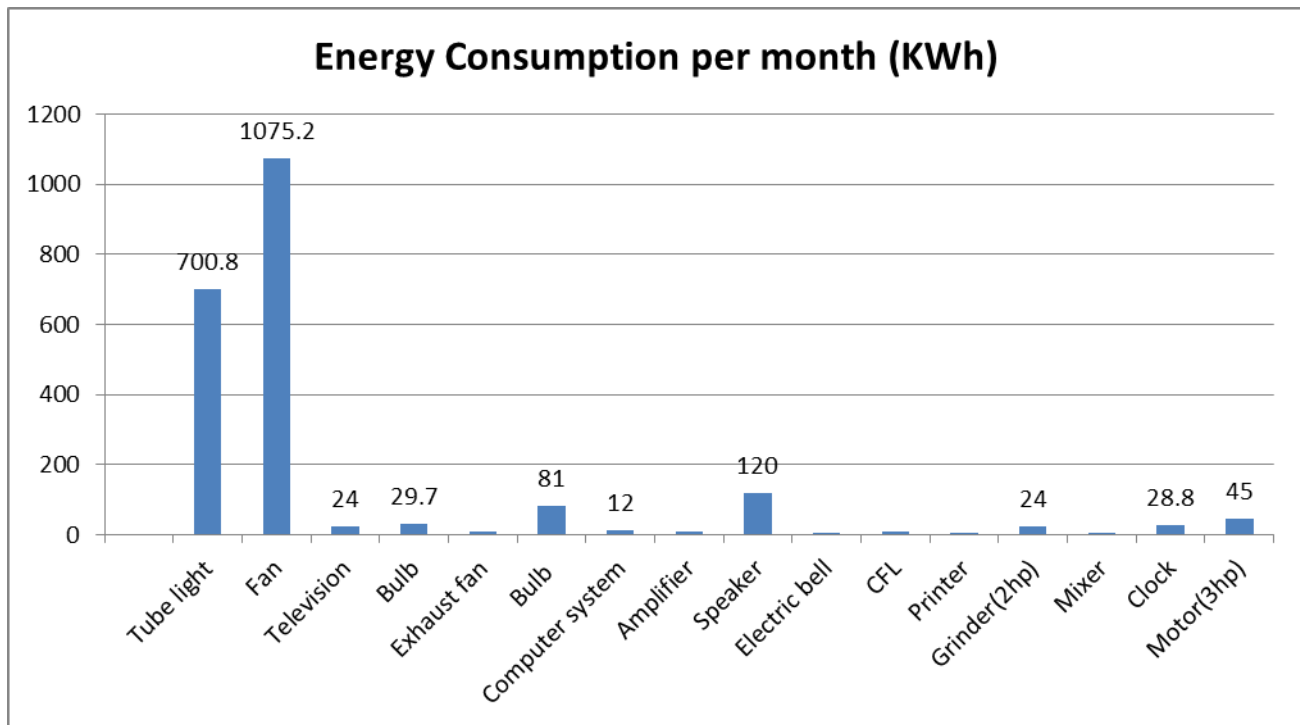
14. DBIS



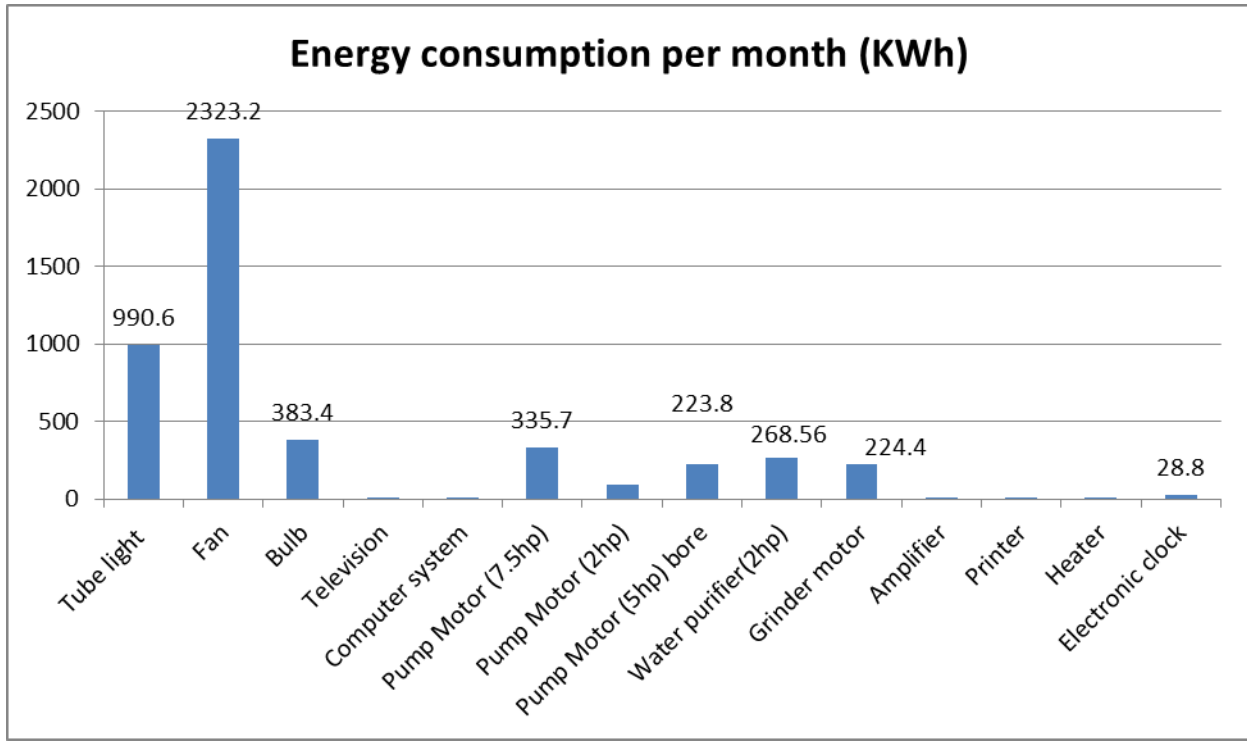
15. RINALDI HOSTEL



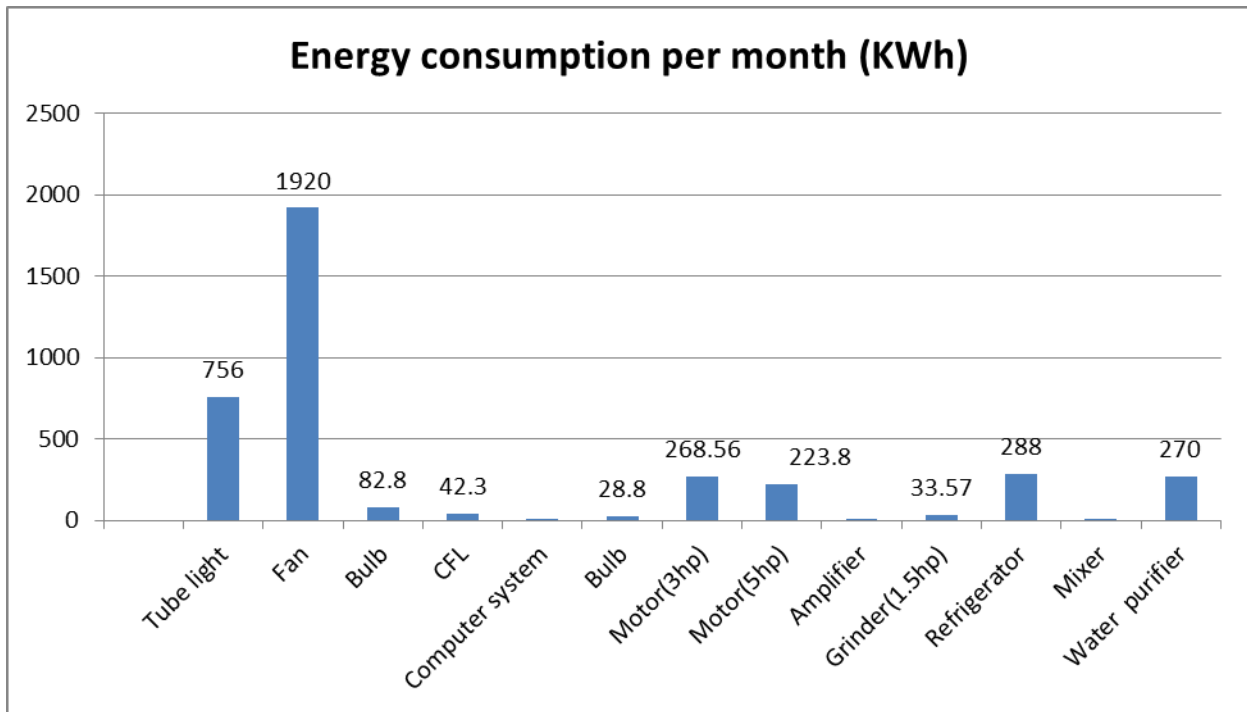
16. MURPHY HOSTEL



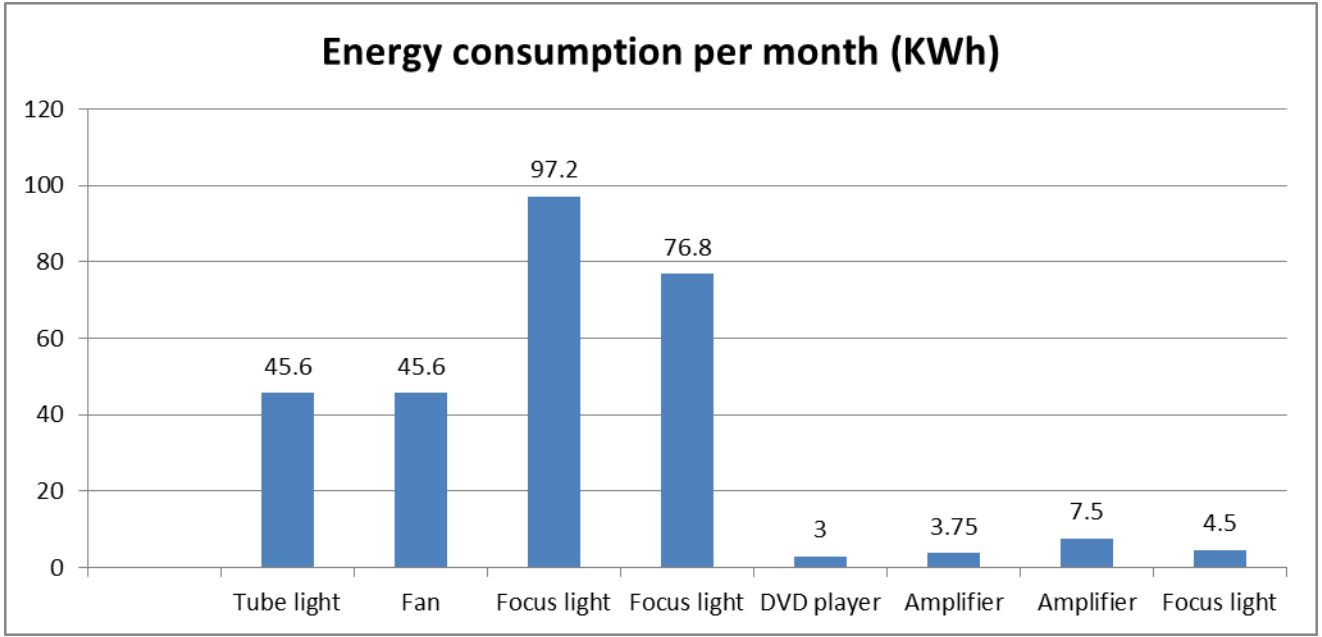
17. GUEZUO HOSTEL



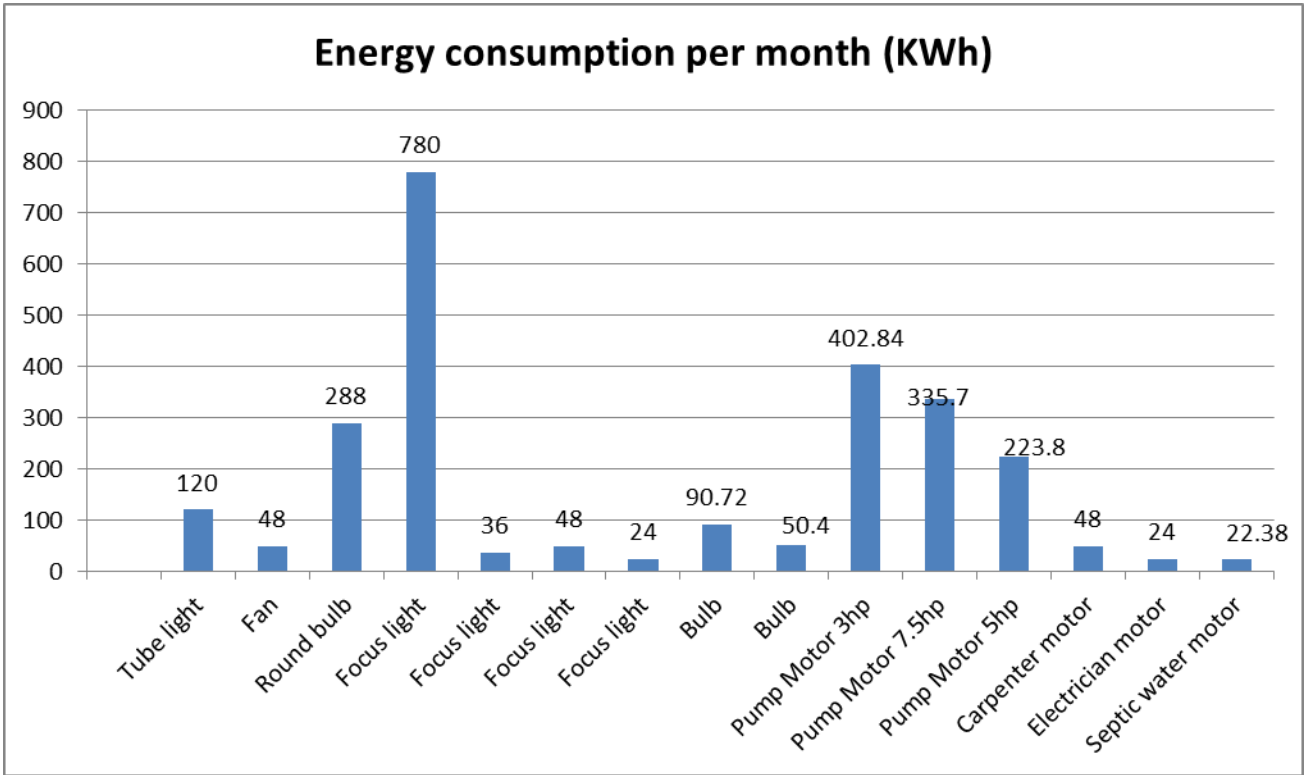
18. AMALAGAM HOSTEL



19. CHURCH



20. GYM, PARKING SHED AND GENERAL TOILET



A meeting of the department staff with two representatives of the EB department, Mr. S. Krishnan, ADE, Tirupattur(north), Mr. K. Arul Pandiyan, AEE, Tirupattur(north), was held on 10-2-2017 (Friday) at 6.30 pm in the Di-fiore hall and the results obtained were analyzed and discussed. It was felt that the energy auditing would be more effective if the data were collected over an year and then the average power consumed per month by every block were calculated. However, based on the present auditing results and discussions, the department would like to offer the following suggestions for minimizing electrical power wastage and for saving electrical power within Sacred Heart College Campus.

1. Switch to Solar power usage. Install energy saving solar-powered lights wherever possible.
2. Switch to energy-efficient light bulbs like LED and CFL.
3. Use Star labelled /Star rated electrical appliances in all the places.
4. Use power savers (Capacitor banks) to reduce the inductive load.
5. Replace all old wires with new wires (Old wires lead to wastage of energy in the form of heat)
6. Ensure proper earthing in every block. Check weather neutral wire has been properly connected to the ground.
7. Install the MCB in all the blocks.
8. Create awareness among staff and students about the importance of energy savings. Educate them not to leave electrical appliances in standby mode or sleeping mode for a long time, to use lights, fans, etc. only when they are needed and turn off PCs, printers, fans, lights, photocopiers and other stand-by appliances at the wall at the end of each day.

9. Have separate control or switch for each electrical appliance.
10. Install automatic light sensors or timed sensors on outdoor lighting.
11. Set AC and Refrigeration Units to the proper temperature.
12. Appoint an Energy Manager.
13. Implement the first nine suggestions in one block and study the energy saving. If found effective, implement throughout the campus.