



Centurion University of Technology and Management, Odisha

Energy Conservation report

Sensor Based Solar Street Light:

531 number of Solar LED lights have been installed in three of the campuses (Paralakhemundi, Bhubaneswar and Bolangir). The street light is timer controlled.

The street lights are sensor based depending upon traffic timings. It glows brighter most during 5pm to 00 hr and its lux goes half from 00 Hr to 5 am with these sensor based automation we saved 495611 units energy costing Rs- 2973666/- in last four years.

Automatic-Level Controlled Water Pumping System:

All our water pumping motors at all the campuses are automatic level controlled. When the overhead tank filled up, the motor gets switched off.

Bio-metric Based Attendance:

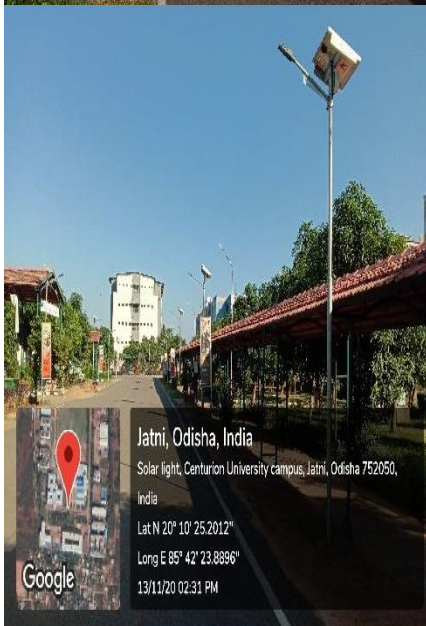
By adopting bio-metric based attendance, we are saving office stationaries like attendance register.

Source of Energy:

The campus is fed from TPCODL(Previously CESU).

Energy Conservation:

All across the university, we are looking to a sustainable future by working to become carbon neutral. University is taking responsibility for their environmental impact and are working to neutralize those effects. For energy conservation, university is always keen to reduce their emissions of greenhouse gases, reduce their waste of energy, use more renewable energy, and emphasize the importance of sustainable energy sources.



Steps taken for energy conservation:

- Most of The conventional CFL and Halogen lights have been replaced.
- 32 KW of solar system is also being installed and integrated with the grid.
- An 800KW grid integrated solar system is also on the process of installation.
- The solar street lights has been installed inside the campus.
- Students, faculties and staffs are always sensitised to not to waste electricity
- University is encouraging its people to maintain the air-conditioners at 25⁰C.
- Energy audit is always carried out periodically at the campus and report findings are rectified priority-wise.

Status of energy Conservation

Sl. No.	Light	Watt	Nos.	HR S	Energy (Units) Consumed	Energy (Units) consumed by previous fittings	Energy(Units) Saved	Yearly savings(Units)	
2017									
1	5 Watt LED Bulb	5	20	12	1200	2400	1200	438000	
2	7 Watt LED Bulb	7	52	12	4368	8736	4368	1594320	
3	9 Watt LED Bulb	9	87	12	9396	18792	9396	3429540	
4	12 Watt LED Bulb	12	40	12	5760	11520	5760	2102400	
5	15 Watt LED Bulb	15	6	8	720	1440	720	262800	
6	23 Watt LED Bulb	23	12	8	2208	4416	2208	805920	
7	27 Watt LED Bulb	27	16	8	3456	6912	3456	1261440	
8	46 Watt LED Bulb	46	2	12	1104	2208	1104	402960	
9	50 Watt LED Bulb	50	2	12	1200	2400	1200	438000	
10	90 Watt LED Bulb	90	8	12	8640	17280	8640	3153600	
11	120 Watt LED Bulb	120	4	12	5760	11520	5760	2102400	
12	400 Watt LED Bulb	400	15	12	72000	144000	72000	26280000	
13	18 watt Tubelight	18	150	12	32400	64800	32400	11826000	
14	28 watt Tubelight	28	50	12	16800	33600	16800	6132000	
15	36 watt Tubelight	36	1354	12	584928	1169856	584928	213498720	
16	9 watt LED Tubelight	9	1	12	108	216	108	39420	
17	18 watt LED Tubelight	18	1	12	216	432	216	78840	
					750264	1500528	750264	273846360	273846 Units
2018									
1	5 Watt LED Bulb	5	12	8	480	960	480	175200	
2	9 Watt LED Bulb	9	287	8	20664	41328	20664	7542360	
3	12 Watt LED Bulb	12	10	8	960	1920	960	350400	
4	18 Watt LED Bulb	18	133	8	19152	38304	19152	6990480	
5	50 Watt LED Bulb	50	1	8	400	800	400	146000	
6	50 watt Flood light	50	3	3	450	900	450	164250	
7	100 watt Flood light	100	5	3	1500	3000	1500	547500	
8	200 watt Flood light	200	8	3	4800	9600	4800	1752000	

9	12 watt Ceiling light	12	77	8	7392	14784	7392	2698080	
10	36 watt Ceiling light	36	79	8	22752	45504	22752	8304480	
11	45 Watt Street Light	45	14	12	7560	15120	7560	2759400	
12	18 watt LED Tubelight	18	576	12	124416	248832	124416	45411840	
13	20 watt LED Tubelight	20	33	12	7920	15840	7920	2890800	
					218446	436892	218446	79732790	79732 Units

2019									
1	9 Watt LED Bulb	9	330	12	35640	71280	35640	13008600	
2	15 Watt LED Bulb	15	14	8	1680	3360	1680	613200	
3	18 Watt LED Bulb	18	42	8	6048	12096	6048	2207520	
4	20 Watt LED Bulb	20	12	8	1920	3840	1920	700800	
5	23 Watt LED Bulb	23	20	8	3680	7360	3680	1343200	
6	LED Hanging light	15	3	8	360	720	360	131400	
7	LED Focus light	50	257	8	102800	205600	102800	37522000	
8	LED Streep light 5 mt	30	8	12	2880	5760	2880	1051200	
9	LED Track Light 30Watt	30	6	12	2160	4320	2160	788400	
10	85 Watt CFL	85	2	8	1360	2720	1360	496400	
11	18 watt Ceiling ligh	18	58	8	8352	16704	8352	3048480	
12	22 watt Ceiling ligh	22	34	8	5984	11968	5984	2184160	
13	90 Watt Street Light	90	13	8	9360	18720	9360	3416400	
14	10 watt LED Tubelight	10	130	8	10400	20800	10400	3796000	
15	Surface pannel light 18 Watt	18	14	8	2016	4032	2016	735840	
16	Surface pannel light 24 Watt	24	12	8	2304	4608	2304	840960	
17	Solar Street light 18 watt(Solar)	0	240	12	0	103680	103680	37843200	
					196944	497568	300624	109727760	109727 Units

2020

1	12 watt Ceiling light	12	4	8	384	768	384	140160	
2	36 watt Ceiling light	36	29	8	8352	16704	8352	3048480	
3	18 watt Ceiling light Ring	18	82	8	11808	23616	11808	4309920	
4	18 watt Ceiling light Ring	18	92	8	13248	26496	13248	4835520	
5	9 Watt LED Bulb	9	50	8	3600	7200	3600	1314000	
6	60 watt LED Tubelight	60	60	12	43200	86400	43200	15768000	
7	90 Watt Street Light	90	2	12	2160	4320	2160	788400	
8	100 Watt Street Light	100	3	12	3600	7200	3600	1314000	
9	45 Watt Street Light	45	4	12	2160	4320	2160	788400	
					88512	177024	88512	32306880	32306 Units

Summary Sheet			
YEAR	UNIT SAVED	RATE PER UNIT	AMOUNT SAVED
2017	273846	6.00	1643076.00
2018	79732	6.00	478392.00
2019	109727	6.00	658362.00
2020	32306	6.00	193836.00
TOTAL	495611		2973666.00

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