

## **Conservation Of Electricity In An Educational Institution**

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### **ABSTRACT:**

Conservation has become a buzz word in today's world. With increasing population and limited resources, demand increases, this in turn puts pressure on production to supply the needs. As far as energy is concerned, most of the energy production in India is coal based. Coal mining can result in a number of adverse effects on the environment such as destruction of existing vegetation, destruction of genetic soil profile, displacement of wildlife and their habitat. The particulates released during coal mining also leads to degradation of air quality. The land use and the general topography in the area may be permanently altered. During mining, methane, a greenhouse gas, may also be released into the air. The waste water produced may not only affect the soil organisms but may also lead to surface and ground water contamination too. Use of coal for energy production in itself leads to degradation of air quality.

For dealing with energy crisis, conservation of energy is one of the solutions. Electrical equipments kept on, when not required, leads to wastage of electricity as well as leads to monetary loss due to inflated power bills.

In the present project, attempt has been made to avoid or minimize the wastage of electricity in an educational institution. This involved preparation of record maps of electric equipments, giving numbers to these equipments and compiling the data of all electric equipments. A comparative study of the electricity consumption at the institution level formed the second level,

the data of which can be continuously monitored to create awareness in the staff and students of the institution about conservation of energy.

**KEYWORDS:**

Destruction of vegetation, Energy Conservation, Record maps, Monitoring of electricity consumption.

**INTRODUCTION:**

Energy is a fundamental source for life. Various forms of energy plays vital role in different activities. Electricity is a recent form of energy which has brought revolution in human society. Electricity is base of modernization. Though electricity is not natural resource; for the production of electricity natural resources are used.

Increase in human population has led to increased need of electricity. As the rate of development depends on the amount of energy used, consumption of electricity has been increased globally, which ends up in depletion of natural resources like fossil fuel. It is also accepted that sustainable development is possible with conservation of electricity.

Creating energy consciousness among people and awareness about saving electricity is required. Keeping this in mind, one grass root level project was conducted by us in our educational institute.

Ramniranjan Jhunjhunwala College for Arts, Commerce and Science is 53years old educational institute, well known in Mumbai suburbs. RJC has seven floor building with --- number of rooms and---- number of laboratories. Working hours starts from 6.30am upto 8.30pm consuming approximately 26,000 units(kwh) per month costing Rs.2,60,000/.

**AIM AND OBJECTIVES:**

- To save electricity in RJC campus.
- To make survey of electric equipments used in campus.
- To prepare maps of classrooms and labs.
- To label electric equipments and switches according to map.
- To compare electricity consumption before and after the work.

**PROCESS:**

Initially on random basis we made a team of students. We took orientation of them about aim and objectives of project, procedure of project, we discussed about the task they have to perform. After group discussion rules of making map were decided, symbols for electric equipments and other were finalized. We decided that while drawing map, from left door left side equipment will be marked first and subsequently row wise numbering will be done.

Following symbols were used for various equipments and other.

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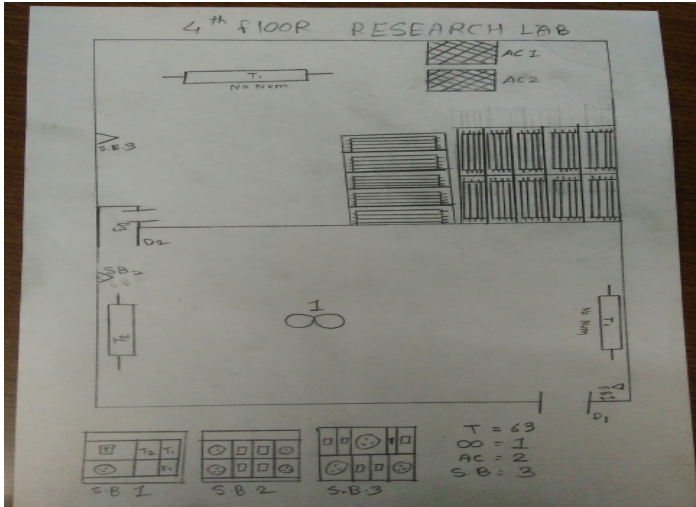
into subgroups, assigning them particular floor and specific room for making map.

Rough maps were cross checked by other team of students. After arranging maps floor wise, list was prepared and tabulation of number of equipments were done. According to the requirements numbers were printed. It was decided that on fan label will be put at two places one at top and other at centre.

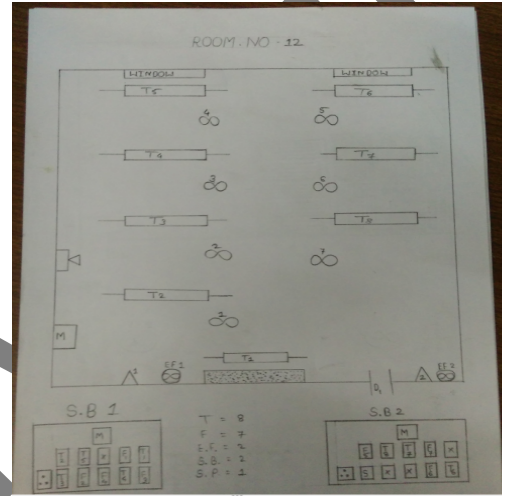
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Referring the rough map fair maps were prepared with more accuracy and perfection. The same team labeled the equipments and with permanent marker numbered the switches according to the fair map.

**MAPS AND PHOTOGRAPHS:**



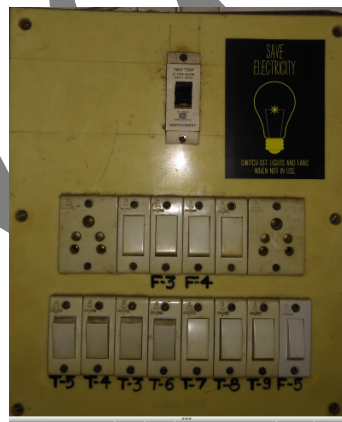
Map of Research lab



Map of classroom



Labeled fan



Numbered switch board



Labeled tube light

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**MATERIAL USED:**

Computer, printer, pen, pencil, eraser, paper, marker, stencil, cello tape, cutter/ scissor, rough cloth.

**TABLE:**

FLOOR	TUBE	FAN	B	AC	SB	SP	BM LCD	COMP	PRINT	CL + FZ	CCTV
0	195	77	6	6	77	9	1+2	15	7	1+2	11
1	157	95	33	8	117	2	1+1	45	21	3+5	13
11	117	73	1	1	29	1	0	8	3	2+1	3
111	154	106	0	5	34	10	0	62	6	2+4	4
1V	212	88	1	4	25	8	1+0	14	4	2+4	4
V	88	50	0	9	22	1	5	244	6	1+1	6
V1	14	32	23	4	25	2	2	63	1	0	2
V11	0	9	19	4	10	2	0	0	0	0	0
TOTAL	937	170	83	41	339	34	3+5	451	48	11+17	43

**SIGNIFICANCE:**

This project made it convenient for students and teacher to switch on/off the equipments according to the requirement which will definitely led to saving electricity.

It helped in generating awareness among the pupils and staff.

**SUGESSTIONS:**

This project can be implemented in all educational institutes and public/ private organizations.

During the course of electrician training this should be taught so that at initial phase only electric equipment maps and numbering will be done.

**REFERENCE:**

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