

Towards Green Campus in BDCE

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How to cite this paper: Prof. P. R. Khobragade "Towards Green Campus in BDCE" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-3 | Issue-3, April 2019, pp.1521-1523, URL: <https://www.ijtsrd.com/papers/ijtsrd22915.pdf>



IJTSRD22915

ABSTRACT

A green campus is a place where environmentally responsible practice and education go hand in hand and where environmentally responsible tenets are borne out by initiatives. In this project we would make vermi-compost by decomposing paper waste, vegetatives etc., by minimizing use of plastic, little practice to save energy using solar energy, harvesting rainwater and introducing community garden. On the basis of our project "Towards Green Campus" we have concluded that after analyzing and implementing the campus of BDCOE, Sevagram various points such as Quality of water has been tested and as for the result it is found portable for the drinking. Waste can be reduced by methodology of composting of waste: - Solid Waste-Waste. It is helpful by implementing the principle of 3R. The good result by maintaining the greenery in campus by implementing our effective techniques.

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KEYWORDS: Rainwater harvesting, solid waste management, LED and CFL, Solar panel, Community garden

I. INTRODUCTION

A green campus is a place where environmentally responsible practice and education go hand in hand and where environmentally responsible tenets are borne out by initiatives. The concept of green campus was introduced in Europe in the 1990s while the Ro Earth Summit of 1992 took realization of the need to take action in "every area in which human impacts on the environment".

Greening campus is all about sweeping away waste food inefficiencies and using conventional sources of energies for its daily power needs corrects disposal handling, purchase of environment friendly supplies and effective recycling program.

Institute has to work out the time bound strategies to implement green campus initiatives. These strategies need to be incorporated into the institutional planning with the aim of developing a clean and green campus.

We are planning to make the Bapurao Deshmukh College of Engineering, Sevagram as an energy efficient campus by lowering and saving energy. Our main focus part is to reduce energy, conservation of water, effective management of waste, conservation of greenery by plantation.

II. METHODOLOGY

For converting the campus in to the green campus following initiatives have been taken in the account:

1. Rain water harvesting
2. Solid waste management
3. Use more LED than CFL
4. Solar panel system
5. Reduce the use of plastic in campus
6. Digital library/e-learning
7. Community garden

By these initiatives we are trying to make our campus more energy conserving.

1. Rain water harvesting: collecting water from the roof with the help of pipes and storing it in the tank. The stored water will further be used for the different purposes.
2. Solid waste management: The two compartments is been made for the storing of the solid waste. The first compartment is used for the dumping of the inorganic solid waste and the second one is for the vermi-composting process.
3. Use more LED than CFL: we are trying to give the comparative difference between the LED and CFL. As LED is more convenient than the CFL as the energy consumption is very high as compared to LED.
4. Reduce the use of plastic in campus: We are promoting more for reducing the plastic bags use by the means of promotions through banners.
5. Digital library/e-learning: we are setting out some e learning sites by which the students can easily get there study materials in the college e book centres.

6. Community garden: community garden is the place where all kind of medicinal plants are been grown. We have made our own community garden where all kind of medicinal plants have been grown in it.
7. Solar panel system: For reducing the use of the electricity we are installing solar panel in the college so that the use of the electricity may get reduced and then it becomes more energy efficient.

III. PRIOR APPROACH

1. Anwar M. A. Naseer Ahmed: Proposed an e- course file management system to shift from a current method of compelling paper based course file to a more versatile method of compelling and maintaining an electronic course files. The system also offers tremendous benefit in saving papers and printing cost, reducing the human and financial resources for future generation, and contributing towards a green sustainable environment.[1]

2. Saeed Rezaei Sharifabadi (02 July 2014) IranAlzahra university: in these paper the author hopes that he has supplied the compressive summary of the current key area of necessary interaction between the e-learning and digital library worlds, and also some perspective on command services that both of these world should draw upon rather than re-developing them.[2]

3. Jefferson Hopewell Robert Dvorak and Edward Kosior (16 June 2014) London: In summary, recycling is one strategy for end of life waste management of plastic we products. It makes increasing sense economically as well as environmentally and recent trends demonstrator substantial increase in rate of recycling of plastic waste.[3]

4. Kathy De Busk PE and Dr. William F. Hunt (12 Dec 2012) North Caroline : Incentive and regulatory program have been shown to significantly increased the implementation of rain water harvesting system and are essential mechanism to facilitate wide spread used. Policy should be carefully constructed and implemented to protect human health while still allowing maximum use and application of these system.[4]

IV. OUR APPROACH

Sustainability has many advantages not only environmentally but also on the long term financial situation of the institute and also to the community.

As we all know that there is very few resources left for overcoming the depletion of natural resources like rainwater there should be a proper watershed management, so for the proper use of the rainwater we are going to provide rain water harvesting in the civil department of BDCOE. Due to the proper rain water management there will be less depletion of the ground water and the rain water can further be use for the dry season for the purpose of the gardening as well as for the purpose of the flushing. Solid waste management is another a big problem there is no proper disposal place for the dumping of the solid waste management so we have prepared a proper dumping place for both the organic and inorganic waste where we are trying for the proper vermi-composting plant for the organic waste other inorganic waste will be send for the proper recycling plant. By this management there will be a no foul seen in to the campus area and the campus will be a clean and green campus.

The other initiatives is the reducing the use of CFL and making the more use of the LED, as LED is more lifelong lightening system and it reduces the use of energy and also less hazardous too. So we are promoting it by the means of banners and doing the comparative study between both. Solar panel system is the energy saving system in which we can reduce the use of the electricity. We are installing the solar panels and making it more energy conserving.

Reducing the use of the plastic in campus by promoting the staff as well to the students. We are trying to promote through the banners and by the social awareness also. Plastic is a major problem faced by all so there should be a proper management or it should be totally banned in the campus.

The other green campus initiatives is by providing a digital library/e-learning centers by this there can be a reduction in the use of the papers we are trying to collect and store some e books so that there will be no paper use in the campus and student will get proper study material in a one e centre.

Community garden is very new concepts in which vegetative plants or the medicinal plants are been plant so that this vegetative can be use for the purpose of canteen in the campus and reduces the use of the costly medicine as well as vegetables.

Control over caching of particular resources and where groups of clients share similar requirements.

For example, suppose the broker is a subscriber to a real-time newspaper where different sections of the newspaper are represented by objects updated independently as the news changes. Many of these sections are of little interest to the broker and so he makes no caching decisions, being happy to communicate with the application remotely on the rare occasions when he does require access. However he does explicitly cache the main news, politics and sports pages within his personal cache server and sets the policy to ensure that each page is at most four hours old. He also caches the financial page which he accesses frequently but, in this case, he sets policy utilizing resource invalidation so that when the financial news changes, at any time during the day, his cache is automatically updated.

Now let us examine the broker within his social context. Unsurprisingly, the broker shares similar interests to his colleagues and there are therefore benefits to be obtained from utilizing a shared cache within his department. The shared cache server (which could be offered by the application) holds the main news and sports sections of the paper as these are the most popular within the department and the user can set up his individual caches for those pages to be bound to the relevant sections cached there. The fact that many of the broker's colleagues are accessing the same caches means that our broker is more likely to receive cache hits. Similarly the broker could bind other of his caches to other cache servers at disparate geographic locations.

CONCLUSION

On the basis of our project "Towards Green Campus" we have concluded that after analyzing and implementing the campus of BDCOE, Sevagram various points such as

1. Energy can be reduced by replacement and addition of various unit :- Solar Panel

2. Quality of water has been tested and as for the result it is found portable for the drinking
3. Waste can be reduced by methodology of composting of waste :- Solid Waste-Waste
4. It is helpful by implementing the principle of 3R
5. The good result by maintaining the greenery in campus by implementing our effective techniques

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