



## **VFSTR: A Green Campus**

Vignan's Foundation for Science, Technology, and Research (VFSTR), deemed to be university, has been preparing globally acceptable, industry-ready skilled professionals to aid the socio-economic transformation of the region as well as the country as a whole. It is dedicated to provide quality education in a diverse and intellectually stimulating environment. The institute celebrates the power of knowledge, cultivates vision and builds awareness about the self and society around. VFSTR situated in the rural area of Vadlamudi in Guntur district of Andhra Pradesh offers a pristine green environment to its students and staff. The following sustainable practices are carried out on campus for achieving an eco-friendly environment.

- **Green Initiatives at VFSTR campus**

The campus employs a very sustainable approach towards energy consumption. Architecture of the campus is such that natural sunlight and ventilation can be used to its maximum in order to reduce energy consumption. VFSTR utilizes about 61% energy from grid supply and 39% from 1MW solar PV Power plant solar power plant which was installed and became operational in 2018. Use of LEDs, smart sensoring ACs are also present at the campus to reduce energy consumption. Special awareness programmes on energy conservation and instructions are given to the staff and students for sustainable use of electricity on campus.

Apart from the solar power plant renewable energy use is promoted on campus. An on campus biogas plant is installed for generating biogas for cooking purpose from the vegetable waste and food waste generated in the campus hostel, dining halls and cafes. The BioUrja-1000KPD biogas plant was installed in 2018 at VFSTR having a total cost of Rupees 65.00

lakhs which and was supplied by M/S GPS Renewables Pvt.Ltd., Bengaluru. The capacity of the installed Biogas plant is to digest 1000 kg of food waste per day. The biogas yield is ~70 kg of LPG equivalent per day.



**Figure 1: showing solar power plant on the terrace of U-Block in VFSTR campus**



**Figure 2: Biogas Plant at VFSTR campus**



**Figure 3: Use of on campus e-vehicles**

- **Solid-waste Management at VFSTR campus**

Waste Management initiative was taken in view of maintaining Green environment, Go-Green initiative and National Mission on Clean and Green Environment like SWACH Bharat Mission. In the VFSTR campus No Smoking and No Tobacco, Vehicles restriction, Garbage segregation, reusing waste and rain water harvesting are followed. All the steps took toward the waste management in the VFSTR campus are to oblige global cause by initiating the necessary steps.

All the solid waste in each block, hostel rooms, surrounding areas, and library, restrooms and kitchen waste are segregated and collected each morning by housekeeping staff in separate containers and loaded into the truck. All the wet waste is gathered at waste yard marked as compost pit at the extreme end of the campus. The dry waste collected is used as landfills. The remaining plastic materials, tin cans and glass bottles are sent to recycling shops and collection centers. The recycled wet waste is used as a manure/ fertilizer on the campus. The VFSTR University encourages students and staff not to use plastics and use a reusable, recyclable material. To utilize the water carefully, instructions and save water sign boards are also attached at drinking facilities.

Total waste collected in a day (including wet and dry waste)=890kg and Volume of waste=3.567m<sup>3</sup> . For plastic waste management a pet bottle shredder has also been installed at university premises.



**Figure 4: Segregation of waste at source**





**Figure 5: Plastic bottle shredder at dining halls**

- **Liquid-waste management and water conservation practices**

A 600 KLD capacity sewage treatment plant system is being set up at VFSTR campus by Bluedrop enviro pvt. ltd. which uses the technology of artificially constructed wetland system. This technology uses phytoremediation and microbial remediation techniques for sewage water treatment. This STP is engineered systems to use the natural functions vegetation, soil, and organism to provide waste water treatment to wastewater. After treatment this waster will be reused for gardening and car washing purposes. Rain water harvesting practices are also carried out on campus.



**Figure 5: Sewage Treatment Plant at VFSTR**

- **Green campus and herbal garden**

Apart from all the green initiatives, VFSTR maintains a green campus housing a vibrant biodiversity. Several species of trees, shrubs and herbs are found on the campus which serves as habitat for animal and bird species. It also has its own herbal garden of prominent medicinal herbs.





**Figure 6: VFSTR Green Campus**



**Figure 7: VFSTR herbal garden**



- **Environmental Awareness Campaigns**

VFSTR conducts periodic on campus awareness programmes on environmental issues along with other outreach programmes such as swachha bharaat abhiyan etc. To further initiate awareness among the students and the staff VFSTR aims to organize more conferences, seminars and workshops on plastic waste management.



**Figure 8a: Environmental awareness campaigns and programmes (AY 23-24)**

*Celebrate*  
**WORLD ENVIRONMENT DAY**  
 5<sup>th</sup> JUNE 2023  
 Theme : BEAT PLASTIC POLLUTION

JOIN THE  
**WEBINAR**

**DIVERTED FROM LANDFILL : REUSE OF SINGLE USE PLASTIC PACKAGING WASTE**

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**Convener**  
 Dr. Shubhalakshmi Sengupta  
 Asst. Prof. (Scientist), Chemistry, SASH, VFSTR, Co-ordinator, CEPC

**Dr. M. V. K. Srivani**  
 Assoc. Prof., Chemistry, SASH, VFSTR

01.30p.m on 05-06-2023 (Online via Zoom) | Please register : <https://forms.gle/d9GD5C63FPTTC149>

Organized by  
**Centre for Environmental Pollution and Control**  
 in association with  
 • Department of Chemistry • School of Applied Science and Humanities (SASH), VFSTR

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 (Deemed to be UNIVERSITY)  
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Figure 8b: Environmental awareness campaigns and programmes (AY 23-24)





**Figure 8c: Environmental awareness campaigns and programmes at VFSTR and in adopted villages (AY 23-24)**





**Figure 8d : Environmental awareness campaigns and programmes at VFSTR (AY23-24)**

Thus, VFSTR campus is an eco-friendly campus which promotes energy efficiency. It conduct environmental, energy and safety audits on campus and employs designated centres, committees and staff more maintenance of a sustainable, energy efficient green campus.

**Report prepared by Centre of Environmental Pollution Control (CEPC), VFSTR.**

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