

Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded.

7.1.6 Rain water harvesting in the institute

It is believed that, in future wars will be fought on water sharing. As the population of the globe is increasing the water requirements will also increase multifold. The water crisis can be addressed through proper water management policies including rain water harvesting and careful use of water, thus precious resource. In addition, it is imperative to work in the direction of waste water management as well, particularly in urban and rural habitats. The Water flow restrictions on bathroom faucets and showers, low water flow toilets and automated urinal flushers should be used to cut down water use.

Rain water harvesting is one of the oldest and simplest methods of self-water supply for not only the households but big institutes also. It provides the independent water supply during the regional water restrictions in many developed and in developed countries, it is often used to supplement the main supply. Also, in the areas where clean water is costly, rain water harvesting is the main source.

SGGSIE&T, Nanded is located 10 km from Nanded city. The institute admits around 900 students for UG, PG courses and Ph.D. programs. The total student and staff strength in the campus is around 4000. The institute has well-constructed boys' (two) and girls' (three) hostels, Director's residence and faculty quarters for accommodation of the students and staff. The student strength residing in hostels is around 1300 and during running semester faculty and staff are on campus. Thus, there is a considerable demand of water for daily domestic consumption in the campus.

If rain is unpredictable, rain water harvesting is very critically used to save every single drop water. Marathwada is a kind place where the environment is a bit arid. Hence, rainwater harvesting is a reliable source of clean water. The institute is located in Marathwada region of Maharashtra state and the average annual rainfall is 850 mm, but due to variation and increasing population there is scarcity and water shortage during summer. The need of water conservation initiatives is thus indisputable. The management of the institute has formulated a rain water harvesting policy for the entire campus to overcome the water crisis apart from water conservation initiatives and reuse of waste water. The institute will have to take all necessary measures to implement rain water harvesting and reuse of waste water.

As per the policy every departmental building is being provided with necessary pipe fittings for rainwater collection and various arrangements and structures for filtration and infiltration of water deep into the soil formation. The results of rain water harvesting is visible through improved water level and greenery in the campus.

About 70% area in the campus is green and sandy. It indirectly contributes in the process of rain water harvesting. The efforts were taken to channelize rain water towards bore wells also to increase the ground water level. As a consequence, there is significant water level rise in the rainy season. A small stream flows through the campus in which it is proposed to implement a concept of 'recharge shaft' to achieve increase in infiltration rates to ground water whenever water flows through during rainy season.


Director