

# DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

An Autonomous Institute

Approved by AICTE & Permanently affiliated to JNTU GV

Accredited by NAAC with 'A' Grade and Inclusion u/s 2(f) & 12(B) of UGC Act

An ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Institute.

NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

Website: [www.diet.edu.in](http://www.diet.edu.in), 9963993229 E-mail: [principal@diet.edu.in](mailto:principal@diet.edu.in)



## Water Conservation facilities available in the Institution:

### 1. Rain Water Harvesting

The college has implemented a **rainwater harvesting system** to conserve rainwater and promote sustainable water management. This initiative has significantly contributed to the **increase in the groundwater level**, ensuring a steady water supply for the college borewells. The system enhances **natural groundwater recharge** and provides water for various campus needs.

From the college campus, the **harvested rainwater collected from rooftops** is estimated to be **5,984.97 cubic meters**, while the **surface runoff from the land area** accounts for **10,733.66 cubic meters**. Therefore, the **total rainwater harvesting potential** of the college campus is approximately **16,718.63 cubic meters**, equivalent to **16,718,630 liters** of water.

This substantial volume of harvested water plays a vital role in **recharging the groundwater table** and ensuring **sustainable water availability** for the institution's future needs.



Rain water harvesting pit

## 1. Location of Rainwater Harvesting pits:

### Rain Water Harvesting Pits Location Details

S.No	Location of pits	No's
1	DIET Main block, near to the open Dias	1 No
2	Near to the Bus parking	1 No
	Total	2 No's

## 2. Water Resources and Rainwater Harvesting at the College Campus

### Open wells and borewells

The total area of the college campus is approximately **46,143 square meters**, out of which about **6,135 square meters** (around **15%**) has been developed as **academic zones**. The remaining **40,008 square meters** (about **85%**) has been designated for **greenery and open spaces**, promoting an eco-friendly and sustainable environment.

The college primarily depends on **groundwater** to meet its water requirements, with an **average daily water demand of about 70,000 liters**. To meet this demand and ensure sustainable groundwater levels, the campus has developed a **comprehensive rainwater harvesting system**.

Currently, the campus has **three borewells** of varying depths, constructed based on sub-soil water conditions. These borewells are **regularly recharged** through **three rainwater harvesting ponds** and **two harvesting cum soak pits**. This integrated system not only meets the daily water requirements but also helps in **maintaining and improving the ground water table**, ensuring long-term water security for the institution.



**Open well for Ground Water recharge**



**Bore wells used for various purposes in the campus**

**Locations of Borewells:**

**Borewell Location and respective Depths in the Institute**

<b>S.No</b>	<b>Location of the Borewell</b>	<b>Borewell Depth</b>
1	Near car parking	180 Feet
2	At M.V Block (Civil Labs)	190 Feet
3	Playground	

### 3. Construction of tanks



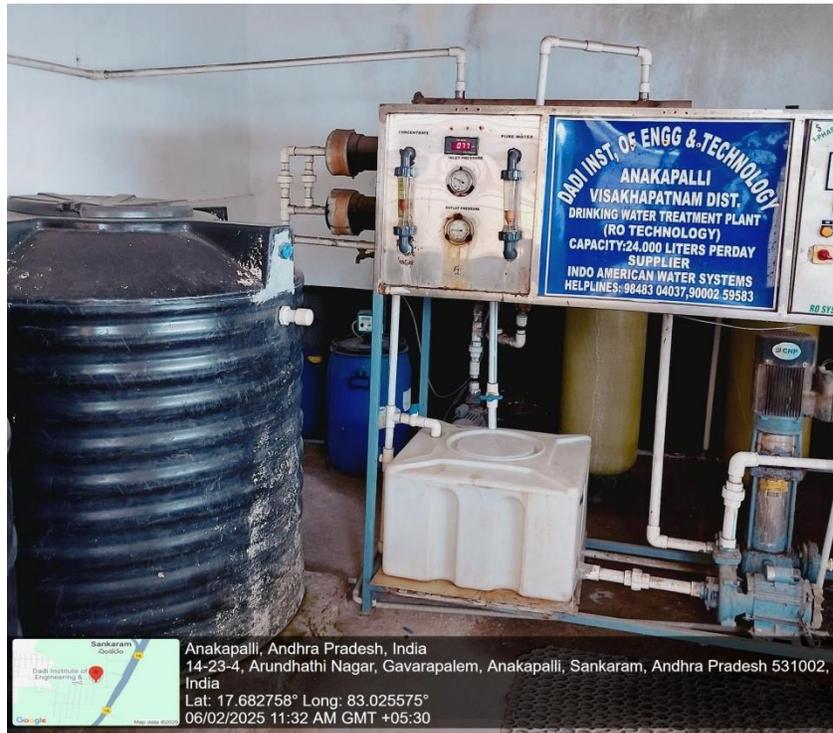
**Waste water storage 20,000 liters capacity which is coming from RO Plant System**  
**Waste water recycling**

Reverse Osmosis (RO) Water Treatment System in the Institute

In this institute, wastewater is purified using modern treatment technology that incorporates **filtration and reverse osmosis (RO) membranes**. The RO plant has a **maximum purification capacity of 24,000 liters per day**. The raw water, which typically has a **Total Dissolved Solids (TDS) concentration ranging from 750 to 1000 ppm**, is treated to reduce the TDS level to **below 100 ppm**, which falls within the generally accepted standard for potable water quality.

The plant supplies approximately **2,000 liters of purified water per day** to meet the requirements of all users within the campus, including students, faculty, and staff. The treatment system consists of **multiple RO membrane filters connected in parallel**, followed by **post-treatment filtration** to ensure high-quality drinking water.

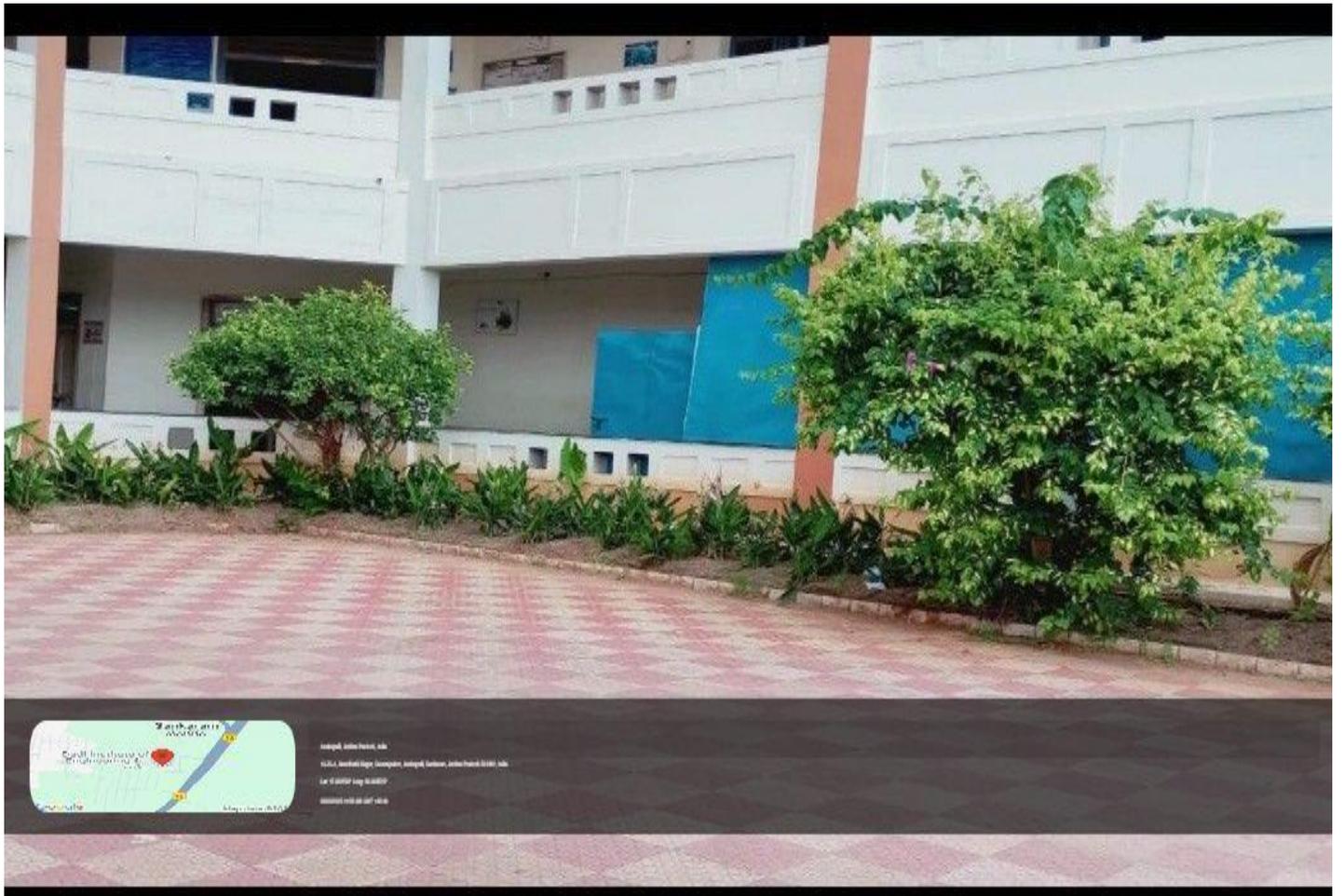
The treated water is distributed through strategically placed **water dispensers and filters** located in **classroom blocks, laboratory blocks, administrative offices, the cafeteria, and other key areas** of the campus. Moreover, the **reject (waste) water** from the RO system is **reused for gardening and cleaning purposes**, promoting **water conservation and sustainable campus practices**.



**Water Treatment plant facility in the institute**

### **3.2 Waste water used for landscaping in the campus**





*Raichur*  
PRINCIPAL  
Dadi Institute of  
Engineering & Technology  
ANAKAPALLE - 531 002