

Outreach Activity: An Awareness Program on **"Rainwater Harvesting"**

(వర్షపు నీటి సంరక్షణ)

**BANDARLAPALLI (V), CHANDRAGIRI MANDAL,
TIRUPATI DISTRICT, A.P, INDIA**

19th November 2022

**DEPARTMENT OF CIVIL ENGINEERING
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)**

Sree Sainath Nagar, Tirupati – 517 102, A.P.

Department: **CIVIL ENGINEERING** | Date: **19th November 2022**

Outreach Activity

An Awareness Program on "Rainwater Harvesting"

at Bandarlappalli (V), Chandragiri Mandal, Tirupati District, A.P, INDIA

19th November 2022

The Department of Civil Engineering of Sree Vidyanikethan Engineering College has organized an **Outreach Activity** – An Awareness Program on **"Rainwater Harvesting"** at Bandarlappalli (V), Chandragiri Mandal, Tirupati District, A.P, India under **ASCE Sree Vidyanikethan Engineering College (ASCE SVEC) Student Chapter** on 19th November 2022 i.e., 10.00 A.M to 12.00 P.M. The objective of the program is to motivate, create awareness and impart knowledge on Rainwater Harvesting to the Public or Community.

Dr. O. Eswara Reddy, Professor and BOS Chairman, Department of Civil Engineering, SVEC and Faculty Advisor-ASCE SVEC Student Chapter and Convener of the Program; Mr. D. V. Purushotham, Assistant Professor and Faculty Advisor-ASCE SVEC Student Chapter and Coordinator of the Program graced the occasion. Office bearers of ASCE SVEC Student Chapter were the organizers of this program.

02 No. of Faculty Members and **15 No. of Students** including ASCE SVEC Student Chapter Office Bearers of Civil Engineering Department were actively participated in the program. Faculty and Students explained the importance of rainwater harvesting in order to improve the ground water resources and reduce water scarcity in Bandarlappalli (V), also the uses of Rainwater Harvesting Systems; and Methods are explained to the villagers. Further, they explained the need of safeguarding water resources for the benefit of future generations. At the end of the program, villagers understood the need of rainwater harvesting system for their villagers and came forward to cooperate in all respects and requested to develop a comprehensive rainwater harvesting system for their villager to follow.

On the whole, the event has proved successful. Community service is to work for free to benefit the community. Community service can have a lot of positive effects on students, such as helping them to develop skills, making contacts, and allowing them to improve the quality of life of others. The students can develop an attitude of giving something to society. Also, it creates realization in the budding engineers to innovate and work for the society

The photographs of the event are as follows.



ASCE SVEC STUDENT CHAPTER



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Event Banner



**ASCE SVEC Student Chapter Office Bearers of Civil Engineering Department creating Awareness on
"Rainwater Harvesting" at Bandarlappalli (V), Chandragiri Mandal, Tirupati District, A.P, India**



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ASCE SVEC Student Chapter Office Bearers of Civil Engineering Department creating Awareness on "Rainwater Harvesting" at Bandarlapalli (V), Chandragiri Mandal, Tirupati District, A.P, India



Group Photograph of ASCE SVEC Student Chapter Office Bearers and Faculty of Civil Engineering Department during the Awareness Program on "Rainwater Harvesting", Bandarlapalli (V), Chandragiri Mandal, Tirupati District, A.P, India



Posters on “Rainwater Harvesting” as Part of Poster Presentation

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RAIN WATER HARVESTING



The new method was first experimentally implemented in a check dam near Ootintla in Kadapa district.



Construction of Water Conservation Pit in an Innovative Manner

Construction of Water Conservation Pit in an Innovative Manner

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RAINWATER HARVESTING



Recharge Wells Augment Groundwater




Recharge wells mainly take rainwater and return it to us through wells or bore wells. Groundwater recharge means diverting excess rainwater into recharge wells without wasting it. This water enters the earth's crust and returns water to bore wells. This not only recharges the groundwater table but also prevents flooding.

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RAINWATER HARVESTING



Bore Well Recharge

- First dig a pit 3 m long, wide and deep around the dried bore
- At the time of drilling, holes should be drilled 4-6 m in diameter on all four sides of the casing pipe, through which nylon wire should be wrapped around the pipe to prevent sand and mud from entering the borehole
- Spread the stones 1 to 6 feet high with a radius of 3 to 40 cm, one foot thick with 15-20 cm stones followed by 0.5 foot thick 7.5 cm 20 mm stones and another 0.5 foot thick 2-4 cm pebbles.
- Drains should be constructed to allow the surrounding rainwater to enter the culvert.

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Rainwater Harvesting



Method of Augmenting Ground Water




Initially, we have to measure the quantity of water generating in the village. Then decide size of the pit. Then prepare drainage gully line for convey the water to the pit. For repairing purpose arrange maintenance room (just like a man hole but smaller in volume).

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Rain water harvesting



Water Harvesting Techniques

Rain water that falls on the roof should be piped through and stored in a pot below. Water stored in pots can be used for bathing trees and farms. low cost and easy method. By doing this, the collected water can be delivered to the Fields during dry season. Therefore, the chance of good harvest is high.

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Methods Augmenting Ground Water



- Construction of rain water harvesting pits and ditches in the yard, garden and road sides
- Road the houses, diverting rain water from the road into the rainwater harvesting pit
- Diverting water into the waterless wells and bore wells
- Protecting vacant lot, parks, ponds, lake
- Planting trees planting

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Rainwater Harvesting



Method of Storing Rainwater through the Roof of the House



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Ground Water Enhancement Methods

Roof rainwater and runoff from surface water can be stored in storm drains. Storm drains can filter running water. This allows silt to be removed and open wells to be recharged.

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Rainwater Harvesting Methods



Method of Storing Rainwater in a Hilly Area by Contouring Method



Roadside Ditches and Rainwater Harvesting

Posters on "Rainwater Harvesting" as Part of Poster Presentation

19/01/2022

(Dr. O. ESWARA REDDY)

Faculty Advisor-1
ASCE SVEC Student Chapter
Professor and Chairman-BOS