

विद्यार्थ्यसाध्यता।

FOUNDER –
Shreemant Malojirao Naik Nimbalkar
Rajesahab Phaltan.



PHALTAN EDUCATION SOCIETY'S

COLLEGE OF ENGINEERING, PHALTAN

(Approved by AICTE New Delhi, D.T.E. Mumbai and D-BATU Lonere/MSBTE Mumbai)

Shreemant Shivajiraje Nagar, Kurawali Road, Thakurki, Tal.Phaltan, Dist.Satara Pin 415 523

E-mail : pes.coepprincipal2011@gmail.com / coepprincipal@yahoo.co.in

Website : www.coephaltan.edu.in

Hon. Shreemant Sanjivraje Naik Nimbalkar

Secretary, P. E. S.

Prof.Dr. N. G. Narve

Principal

Ref. No. :

Date:

Waste Water treatment plant

Water treatment plant:

The Water Treatment Plant in the campus plays a crucial role in supplying safe and treated water for various campus requirements. Raw water collected from approved sources is treated through a systematic process to meet the required quality standards. The treatment process includes screening, coagulation, flocculation, sedimentation, filtration, and disinfection, which effectively remove suspended solids, impurities, and harmful microorganisms. Continuous monitoring of water quality parameters such as pH, turbidity, and residual disinfectant ensures the reliability and safety of the treated water. In addition to meeting potable and utility water needs, the treated water is effectively reused for horticulture and landscaping purposes across the campus. This treated water is supplied to plants, gardens, lawns, and green areas, thereby reducing the consumption of fresh water and promoting efficient water reuse.

The reuse of treated water for irrigation supports sustainable water management practices, helps conserve natural water resources, and contributes to the development of a green and eco-friendly campus. Through the operation of the Water Treatment Plant, the university demonstrates its commitment to environmental responsibility and sustainable infrastructure development.

Main aim to treat water

Root Zone Technology requires low energy, minimal mechanical equipment, and simple operation and maintenance. The treated water is generally suitable for gardening, landscaping, and irrigation purposes, making it a sustainable solution for wastewater management.

This technology supports water conservation, reduces environmental pollution, and promotes the development of green and sustainable infrastructure



Water treated by Root zone theory





Fig: Root Zone Technology Waste Water Treatment Plant

Waste Water Management Project install in our college campus:

Waste water is collected in separate septic tanks constructed separately for each block. Root zone Technology is used to treat waste water. These are constructed as shallow basins with a subsurface barrier to avoid seepage. In this Technology waste water is passing through beds filled with porous media such as aggregate, grit. The hydraulics is maintained in such a manner that water does not rise to the surface retaining a free board at the top of the filled media. 1 m² bed area treat 100 liter water per day. Microbes that treat the waste water live on the gravel, soil and plant surfaces. Plants provide oxygen and food for the microbes.

Typha latifolia cattail plant is used. Root zone Technology Waste Water Treatment Plant is constructed behind the workshop block. Treated water is re-cycled for trees. It has the capacity of 100 liters per day.







Septic Tank

