Shiv Nadar Institution of Eminence

Wastewater treatment process

Shiv Nadar Institution of Eminence has installed a Sewage Treatment Plant (STP) with the latest membrane bioreactor (MBR) technology. It has a capacity of 884 KLD to treat wastewater collected from academic as well as residential blocks, thus promoting environmental sustainability, protecting aquatic ecosystems, and supporting the circular use of water resources.

The STP at the campus has the following water treatment process

- The sewage and other wastewater are collected and pass through preliminary, primary, secondary and tertiary levels of treatment to remove sludge and other debris.
- The water is then treated through membrane bioreactor technology.
- A portion of the treated water is provided to be further filtered and passed through a UV reactor before being stored in the treated water and used for drinking.
- Chemical testing and analysis are done to ensure that all relevant parameters are within the acceptable limits for reuse.
- Water being treated is measured, and records are maintained.
- The sludge collected during primary and secondary treatment undergoes further processing is also reused as manure.
- The treated water is used for irrigation and stored in the artificial lake created for the purpose.
- A part of the treated water is also directly supplied for domestic use in washrooms and for the cleaning activities
- Treated wastewater is reused for horticulture purposes through tanks and pipes for irrigation
- Measurement of reused water is done by recording the number of tanks sent for horticulture purposes and the amount of water being sent through pipes.

Sewage Treatment Plant on campus

Gardening water supply pumps for reuse of treated water