

Power can treat waste water: BITS project

TIMES NEWS NETWORK

Panaji: BITS-Pilani K K Birla Goa campus and Ghent University, Belgium, have developed and implemented a technology, that uses only electricity to disinfect waste water, to treat the waste of a communal toilet.

This technology will help limit the risk to inhabitants around open drains. This technology is an electrochemical system, in which the water is treated by pH changes and the production of chlorine, a strong disinfectant. It allows disinfecting of water without the use of any chemicals and makes it possible to disinfect the waste water where connecting the toilet to a larger sewerage system is not possible.

With support of the program management unit at Biotechnology Industry Research Assistance Council (PMU-BIRAC) of the department of biotechnology and the Bill and Melinda Gates Foundation (BMGF), the researchers of BITS-Pilani K K Birla Goa campus and Ghent University have developed the technology.

The team, who has been



The waste treatment facility at BITS Pilani

working on the project for a couple of years now, first tested the system at laboratory scale, then at single household scale and now the system is operational for a communal toilet for 100 people. The system continuously met the requirements for pathogens set by the Indian government.

When used to treat, not waste water, but fresh water, this technology will enable higher quality of water output.

"The new technology is thus a strong push towards the desired future stand-alone and sustainable toilet and sanitation technologies. The team is now discussing a rollout over multiple sites in India in the near future," a statement by BITS Pilani K K Birla Goa campus states.