

# *BITS Goa, Belgium university develop new technology*

## Team Herald

**PANJIM:** Adding another feature to its cap, BITS-Pilani K K Birla Goa campus has developed a technology to disinfect wastewater through electricity in a bid to limit the risk to inhabitants around open drains.

The project titled 'Empowered septic tank as decentralized wastewater treatment system' was carried out by a team of professors and doctorate students of BITS and Ghent University in Belgium.

"This project aims to develop a financially affordable and simple-to-operate decentralized wastewater treatment system for a single household as well as for a gated community of 100 people (25 families) that will produce high quality effluent for safe disposal. The waste treatment system will involve the bio-electrolysis of wastewater to reduce its Chemical Oxygen Demand (COD) and odour," Prof Srikanth Mutnuri of BITS Pilani told Herald.

The team is using electro-chemical manipulation of water to change the pH to kill pathogens in the wastewater. He revealed that the team started with a small unit in the lab to demonstrate the system and subsequently built a system that serves a household of 10 people and a larger one for about 100 people.

The team, comprising BITS PhD students Guruprasad Talekar, Anant Yadav and Priya Sharma; and Ghent University professors Korneel Rabaey and Willy Verstraete is currently testing this larger system which is attached to a hostel on the campus.

The new technology is a strong push towards the desired future standalone and sustainable toilet and sanitation technologies that do not require to be connected to a larger sewerage system and neither needs the input of chemicals. "The team is now discussing a rollout over multiple sites in India," Mutnuri said.