

Tech kids make community water purifier

A team of six students of IITGn have designed a water purifier that uses UV and solar power technologies to purify water

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Six innovative young minds have utilised ultra violet (UV) technology and solar power to design a low-cost community water purifier that can provide drinking water to at least 20 families. The idea behind creating this product is to facilitate clean drinking water to families in rural and semi-urban settings.

Six students of the mechanical engineering department of Indian Institute of Technology Gandhinagar designed the community water purifier under the guidance of professor Bhaskar Bhatt. These students include Yash Pratap Singh, Tushar Anchan, Raj Shekhar, Rakesh Ranjan, Ankita Sharma and Rajat Shiv Chand.

UV RAYS, SOLAR TECH IS USP

According to the students, the project's unique selling point (USP) is its design which makes use of UV technology and solar disinfection technique. "Almost all purifiers available in the market implement the tech-

nique of reverse osmosis, which is good but leads to lot of water discharge," said Yash.

"The shelf life of reverse osmosis (RO) purified water is low therefore we made use of ultraviolet filtration that comes into effect," said Tushar.

Elaborating on the design, Yash added, "Along with the advanced use of UV technology, the design incorporates a medley of indigenous and advanced technologies like basic filtration techniques involving coconut husk and muslin cloth."

As Raj said, "Our design is mechanical to a large extent as water mainly flows in the direction of gravity thereby reducing the need of power. The design can cater to the requirements of up to 20 families per system. And the cost per system is around Rs 2000."

The designs were finalised after a series of rigorous surveys, focused groups surveys in urban slums of Ahmedabad. The students also had detailed discussions with government officials working in the field of drinking water and professionals of Water and Sanitation Management Organisation (WASMO).



(From left) Rajat Shiv Chand, Yash Pratap Singh, Raj Shekhar, Tushar Anchan and Rakesh Ranjan with the water purifier