Engineering students' innovation tries to rid city of trash problem

Rasheed Kappan, Bengaluru, Apr 8, 2017, DHNS: Page No. 3B

As bin gets filled, garbage management centre gets an alert

Shravanya R and Divya S Hegde, students of R V College of Engineering and designers of smart bins. DH photo

Community garbage bins alert the waste collector just when it is 80% full. The nearest garbage truck rushes in, clears the bin and heads straight to the segregation/recycling unit.

Taking this innovation beyond the idea stage, two R V College of Engineering students are about to redefine solid waste management. Here's how the smart bins, designed by Shravanya R and Divya S Hegde, work: Sensors in the garbage bins are connected through internet to the central garbage management centre.Once the sensors alert the centre and the bins are emptied and cleared, they are reset automatically.

Garbage management is a huge problem in Bengaluru. Garbage overflowing in bins is often left to rot on the sidewalks. "Sometimes, the waste is not cleared for days. When the collectors do come, the bins would not be full. Our concept can address this problem by alerting the collectors through a simple phone message that shows the filled status and bin's location," Shravanya explained to DH. The innovators say the smart bin will allow authorities to save resources and time. "This way, garbage could be managed more efficiently. The Swaach Bharat dream could get a boost."

The duo had worked out the concept as part of the India Innovation Challenge Design Contest 2016 (IICDC). The 10-month-long competition is jointly organised by Texas Instruments (TI), Indian Institute of Management Bangalore (IIMB) and the Department of Science and Technology (DST).

Impressed by the innovation, IICDC organisers helped Shravanya and Divya connect with Bin Bag, a startup working on waste management. "We were also offered courses and online lectures on the business aspect of it. The next step is to create a prototype and test it," said Shravanya.

Designed to push participants to come up with out-of-the-box solutions to real-world problems, the contest is now in its sixth year. TI provides technical resources and guidance throughout the challenge, including tool support and mentoring to design, make prototypes and to create the final product.

DST will provide funding of Rs 3.5 crore to student startups. This will go toward product development fund of Rs 1.5 crore and seed fund of Rs 2 crore for the top teams to incubate their startups.