

TOS students participate in the finals of the Smart School Hackathon 2020.

TOS students Anany Bahekar, Avaneesh Nisal and Shrawani Pingle from Class VII, presented their project “How to manage a noisy classroom” at the Smart School Hackathon’s final round in Pune on 18-01-2020. Their project was one of the 40 projects selected for the final round.



Persistent Systems and i4C in their pilot edition of Smart School Hackathon reached out to schools all over Maharashtra that have Atal Tinkering Labs, Robotic Labs or similar facilities. The aim was to tap innovative mind and creativity of younger students studying in **Class 7, 8, and 9**.

Our school students presented their project “How to manage a noisy classroom”. The technology developed by the students will identify if the noise level in classroom exceeds 85 decibels. In case it does, a light installed at the classroom will blink, telling students that they need to lower their voices.

Hackathon brings high school fixes to everyday issues

By [Sukhada Khandge](#), Pune Mirror Jan 19, 2020, 06:00 AM IST



(L) City Pride School students scan QR codes on books with the app to pack the books according to the timetable. (R) Four girls from Pune Police Public School made a urea detector to ensure cleaner toilets
Students addressed a range of problems, from packing bags to cleaner toilets through technology

It was field day for students of classes IX-XII, who delivered one innovation after the other at a hackathon, organised on Saturday by 14C, a non-profit organisation. The objective was humble: Use the technology balm to address problems related to schools and education, along with the water conservation, environment and war. With respect to school-related concerns, students came up with mobile applications that could be operated from administrative offices.

Vivek Kulkarni, delivery head of innovation and R&D architect at Persistent Labs, who was present at the Hackathon, was impressed with the display. "Students have thought out of the box and the technology used is on a par with the engineering students. We were not expecting the complete prototype of the project, but they actually materialised their ideas," he said.

Of the 103 such varied projects, 40 were distinctive. These were displayed at Persistent Foundation on Saturday. Mirror took a glimpse at few initiatives;

Packing the bag, smartly

On numerous occasions, any given person has opened his/her schoolbag, only to find that they had forgotten to pack according to their timetable. City Pride School students, Aryan Singh, Raj Taware, Dhiraj Bora and Hardik Chaudhari, formulated an ingenious way to prevent this error from recurring by creating a mobile app. It is equipped to remind a user in case they forget their books.

The alarm was rendered by embedding the application with the timetable, followed by creation of QR codes for books. A student will have to scan these stickers before packing the books. The app will signal when the user has bundled everything for the day. In case they forget a book, the app will notify the student about the same through a message.

Taware said, "We used an app inventor to make this mobile application. Since this is a regurgitating problem faced by every student, we decided to curb it."

Sense it, clean it

A team of four girls from Pune Police Public School wanted a breakthrough system aimed at constant cleanliness of toilets. They made a urea detector — essentially a sensor that will determine the amount of urea in toilets. The device is formulated to warn the staff concerned through an LED signal when the urea level spikes, denoting need for cleanliness.

The group members, Sharvari Shinde, Dnyaneshwari Gawade, Vaishnavi Deshmukh and Shrawani Gite, claimed that they have personally felt the need for cleaner toilets and that was reason enough for the girls to raise the cause. "The sensors detect the amount of urea and relay a signal to the transistors. It is forwarded to alarm, wherein the LED glows," said Gawade.

Awaaz nichey!

In a bid to detect noise pollution, students of **The Orchid School** sampled the sound during the breaks, where students often congregate in different corners and indulge in banter. The team of three, **Anany Bahekar, Avancesh Nisal and Shrawani Pingle**, believes that it is important to gauge the noise made during recess — not that it needs to be curbed, but simply maintained.

The technology developed by students will identify if the noise level exceeds 85 decibels. In case it does, a light installed at the classroom will blink, telling students that they need to lower their voices. Pingle said, "It is important that we distinguish between bearable and unbearable sound. This technology could be used when there is no teacher in the classroom."



Popular newspapers covered the Smart School Hackathon's details. And our school's project was viewed as quite an impressive solution to noise levels at schools.

"With the flash of light, lets keep our mouth shut tight" - This was the tag line of our school students project who returned to school after an enriching experience at the Smart School Hackathon 2020 on 18-01-2020 at Persistent Systems in Pune.