

Schools tag, track and text to keep parents worry-free

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July 14: Schools in Calcutta are starting to use technology ranging from radio-frequency tagging to biometric identification to keep parents informed through automated texts about their wards boarding or alighting from the school bus and entering or exiting the campus.

At least two institutes have introduced student identity cards with RFID (radio frequency identification) tags so that parents are alerted by a text the moment they pass through gates fitted with sensors. The Newtown School has got gate readers installed on the buses as well as the campus entrance and exit. South City International School has readers only on its buses.

The Heritage School is the process of getting a biometric verification system for students who use school buses.

The RFID tags are supposed to work in conjunction with GPS, which many institutes have long been using on their school buses. A GPS device allows the school to track the movement of a bus, although the authorities cannot be sure whether a particular student has boarded that bus or not.

STUDENTS UNDER WATCH

RFID

What it is: Use of radio waves to read information stored electronically on tags attached to objects

Where it is used: To track wild animals and birds, detect thefts in shopping malls, monitor trucks plying long distance

BIOMETRIC VERIFICATION

What it is: Identifying a person with one or more biological traits, such as fingerprint and iris pattern

Where it is used: To record attendance, on Aadhaar cards

GPS

What it is: Using satellite data to determine the position of an object

Where it is used: App cabs, wearable fitness trackers, smartphones

This is where RFID comes in.

Radio-frequency tagging is a versatile technology that is used to log employee attendance in offices, track migratory birds and even prevent shoplifting at malls. They work on the same principle in schools.

"The tag readers identify students within a particular range, which would be large for the campus gates and limited for bus gates. We have multiple sensors on the campus gates so that if more than one student enters or exits simultaneously, at least one of the readers would work," said Sunil Agarwal, founder director of The

Newtown School.

"Many other technologies are now available at affordable costs," said Anurag Agarwal, director of Urban Paribahan Services that operates buses for several city schools.

The 13 buses of South City International School have sensors that send out texts to parents once the unique number of the ID card is recognised by the sensors. The Heritage School's biometric system would read fingerprints and send out alerts based on the GPS location of the vehicle.

The institute apparently decided on a biometric system instead of RFID tagging to rule

out the possibility of misinformation if students exchange tags and board the wrong bus. "The biometric device is time-consuming in terms of use but we feel it is foolproof. We have started a trial run on five routes and plan to implement it in 70 buses," said Pradip Agarwal, CEO of the Heritage Group of Institutions.

The schools that have GPS installed on buses for parents to track them include Mahadevi Birla World Academy and DPS Ruby Park. These schools have also installed cameras inside their vehicles.

DPS Ruby Park sends out texts to parents after a child is picked up in the morning and another message after the drop at the designated point. DPS New Town introduced an app-based GPS tracking system in June. Parents who download the mobile phone app and register for the service are supposed to get three messages: first when the bus is approaching the pick-up point, again when the bus reaches the school and a third time when the student is back at the drop point.

South Point too tracks buses through GPS, but has not enabled that feature for parents yet.