Robotics labs in schools big draw among kids

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Bengaluru: Every day, Harshal S, a class 4 student of Bethany High, can't wait for her regular classes to get over. For, that is when he gets to visit the robotics lab in his school and programme a robot. On Monday, he made a robot go in loops, twirl and twist. Harshal and his classmate Rehaan Shanil too danced along.

Their joy sums up the excitement in robotics labs that are now trending in city schools. Several educational institutions in Bengaluru have set up these labs for students of class 1 and above. While some have outsourced it to specialised companies, others have in-house teachers taking lessons for students of classes 1 to 9. Many of them have incorporated it into their timetable, with specially designed curriculum and as-sessment methods.

The lab consists of computers or laptops for coding and a robotic kit that comprises a CPU, sensors and building blocks, which can be assembled and programmed for various tasks. The functions can be as simple as making a robot walk in specific patterns.

"In the lab, students build and code their robots. They learn how to build and code the scientific Mars rover, industrial robotic arm, line-following robots. Kids are also introduced to humanoid robots. Students are able to build, code and learn science and maths concepts effortlessly through the hands-on approach to learning. In fact, students are even learning the fundamentals of AI in the lab," said Arpita Tripathi, head mistress-secondary, Whitefield Global School.

Schools say apart from keeping youngsters updated about technology, robotics labs also promote team work and critical thinking. "Students cannot complete a task alone, so they do it in groups. This enhances their collaborative skills and teamwork. Students pick up coding faster when they have hands-on experiences like this," said Pankaj Kumar Chaudhary, head of computer science at Bethany High. The school has piloted the classes for grades 2-5 as an after-school programme using Lego Mindstorms EV3.

Rekha Vinod, principal, Royale Concorde International School, Kalyan Nagar, says these specialised classes give students hands-on training in STEM (science, technology, engineering, and mathematics) education, helps them innovate, engineer and identify their passion at an young age.

"Anything non-living and yet moving generates curiosity in children. And this is why robotics labs are such a hit with kids. Also the fact that it's not a lecture-based class and involves a lot of activities makes it exciting for students," said Deepa R, principal, Amara Jyothi Public School, KR Puram. The school has robotics as part of its curriculum, with separate periods.

FAVOURITE CLASS: Students of Bethany High in their robotics laboratory

Teaches life skills as much as tech

> Robotics has become an integral part of schools aiming to provide holistic education as it teaches life skills as much as technology. We see an increasing interest among schools in Bengaluru to set up these labs with curriculum, teacher training and infrastructure. One of the advantages with robotics is that it can be incorporated in computer labs by upgrading them

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