

Government school students hold court at IIT-Madras

A project propelled by a group of Chennai-based volunteers brought students from rural pockets to showcase their digital and programming skills

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On a bright Wednesday morning, the auditorium at IIT Madras Research Park was abuzz with excitement. But it was not industry leaders or PhD students talking about their innovations and ideas. Instead, it was a group of 75 government school students who had come to demonstrate their skills in computational thinking, presentation and teamwork.

The schoolchildren had received six months training through a unique project run by the Chennai chapter of Asha, a non-government organisation that has been working to improve access to quality education.

And with the school year drawing to a close, it was time for these students to showcase their prowess and learning at a competition organised for both junior and senior

categories. Fifteen presentations, 12 Scratch programming projects and 12 advanced computing projects were selected for the finals from about 180 projects that the students had submitted.

The digital literacy competition was called “RTC Impressions”, with RTC standing for rural technology centres. In these RTCs, free computer courses are taught to the government school students. As a part of their six-month long courses, the students develop a detailed project.



Students, teachers, judges and ASHA volunteers at the programming and presentation competition held at IIT-Madras Research Park

“Project work is not only an evaluation tool but is also a very important instructional tool,” says Rajaraman Krishnan, one of the core volunteers of Asha Chennai.

Some of the students were from Asha-supported schools. In these schools, the organisation has offered Computer Science teaching support with a collection of content already available free on the web and mapped to the appropriate lessons for each class.

Volunteers do all the operations of the Asha Chennai chapter. Those interested may reach out to chennai@ashanet.org for enquiries. You will then get added to the mailing list and be informed about meetings and activities. Those with Computer Science knowledge can train teachers or help with course design.

IIT-M Pravartak and Asha run six RTCs, four in Thiruvallur district and two in Thoothukudi district, from where the children travelled to take part in the contest in Chennai. Seeing the work done by other students and interactions with judges provided much-needed exposure to the students.

The Scratch programming competition was held in the back of the mini-auditorium. The young contestants were called one batch at a time and asked to present their programme to the judges. The judges tried out the games and programmes themselves.

Students, out of their own interest, had gone well beyond the requirements of the course. For instance, Sivapriyan, who won the web development prize, ran a small webserver and database and had also implemented a small backend code.

K. Sukran, V. Santhosh Kumar and V. Bhuvanesh made a presentation on “vivasayam” (agriculture). The students said they first learnt Open Office features and then picked the topic that was important to their village for their project.

The training has had a ripple effect as students who have acquired proficiency teach their peers. Priskilla, a student from Kannigaiper, has completed her programming and physical computing courses and volunteers to help her classmates with Computer Science.

Four officials from the Tamil Nadu Education department were present during the event and interacted with the children and teachers.

One of the judges, Poorva Bhattar, said, "The most striking feature of the experience is the confidence of the students. They look you in the eye and speak. They are absolutely comfortable with machines and programming, indicative of their involvement in learning. And, since they work on the programmes on their own, the projects are demonstrative of their logic."

What is the curriculum at the RTCs?

Basic Digital Literacy and Basic Programming are the introductory courses. Advanced courses in Web Development, Javascript Animations and Physical Computing are also taught. All the three advanced courses are part of Code.org. Computer Science Discoveries course intended for students from Classes 6 to 10. The courses help students build their own websites, apps, animations and games.

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