Sakal Times 8th Oct 2010

> "...our modules mainly have exciting demonstrations and videos to illustrate properties and applications – Dr K Guruswamy, NCL scientist

Familiarising students with science

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Pune: Building up a budding brigade of young scientists, the National Chemical Laboratory (NCL)-founded 'Exciting Science Group' (ESC) is making efforts to popularise science through its 'Initiative for Research and Innovation in Science' (IRIS).

The initiative, which is getting a good response, started ESC – a group of NCL scientists, who wish to share the excitement of science with schoolchildren. The Group's goal is not to teach science, rather to arouse the curiosity of students to the subject. This initiative has gained momentum since September 2008, and over 20 scientists from NCL, faculty from IISER and IIT-B, staff from the Venture Centre and enthusiastic volunteers are associated with it.

NCL scientist Dr K Guruswamy, who is leading the ESC, said, " Each of our modules is based on a topic from the regular school curriculum for Science. Therefore, our modules mainly have exciting demonstrations and videos to illustrate properties and applications, and we discuss the history behind the science. The activity is well-supported by NCL, the Venture Centre, Battelle India, Forbes Marshall, Praj and industrialist Anu Aga."

Science teacher from St Helena's School, Lakshmi Sundar, said, "Our teaching in schools is syllabus-oriented to score marks. However, through ESC they get first-hand experience and the concepts are made clearer. Students start enjoying science and their confidence level rises. Most importantly, there is no rat race for marks, so students get involved on their own."

Student Deepti Gnanaseelan is presenting her project on 'Trying to get metal indicators from beetroots'. Overjoyed Deepti said, "I did the project as fun and it has been selected for the National Science Fair to be held in Mumbai. My talent is being recognised, and I am doing something different from my routine syllabus."

Current activities of this group includes outreach programmes for underprivileged students in Jawahar Nayodya Vidyalaya at Shirur, Hutatma Balvir Shirishkumar Vidyalaya at Shivajinagar and Valley View School in Kondhwa. Popular talks for schoolchildren include those by researchers and practitioners on various topics in science, technology and mathematics.

HOW THE EXCITING SCIENCE GROUP WORKS

- Exciting Science Group is a group of NCL scientists, which clarifies science concepts to schoolchildren.
- Launched in September 2008, over 20 scientists from NCL, faculty from IISER and IIT-B, staff from the Venture Centre and enthusiastic volunteers are associated with it. The activity is well-supported by the Venture Centre, Battelle India, Forbes Marshall, Praj and industrialist Anu Aga.

chemical weekly 19th oct. 2010

OUTREACH PROGRAMME

NCL scientists reach out to school children

As part of an initiative to reach out to schools, and to excite school children about science and research, the National Chemical Laboratory (NCL), Pune, has been conducting lecture-demonstrations at schools, targeted at students in the 8th to 10th grade. Each of these modules is based on a topic from the regular school science curriculum – but the objective of the lecture-demonstrations is not to teach the students, but to arouse the curiosity of the students. Therefore, these modules mainly comprise of exciting demonstrations and videos to illustrate properties and applications.

The programme recently completed two years, and a small function was held at the Venture Center, adjoining the NCL campus, to mark the occasion. The lectures are supported by the Venture Center at NCL, Battelle India, Forbes Marshall, the Praj Foundation and by Ms. Anu Aga and family.

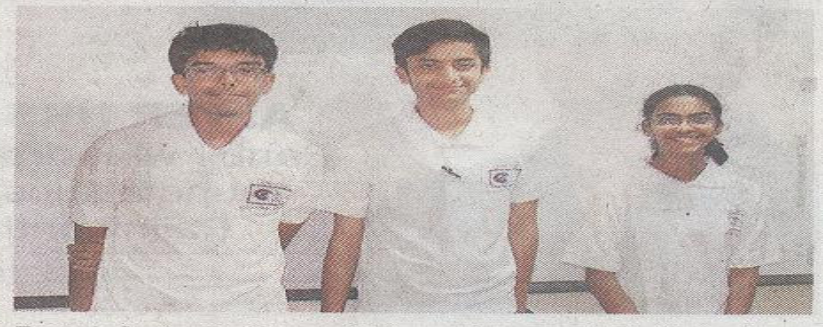
This year, NCL is partnering with three schools and the third module of the talks on crystal growing was conducted on 11 October at the PMC Vidya Niketan School at Police Lines, Shivajinagar by Dr. Nandini Devi, NCL scientist. The lecture-demonstration included several experiments, such as rose petals getting powdered with liquid nitrogen, formation of alum crystals, snowflake formation on a string etc.

Mentoring young scientists

NCL has also been running a mentoring programme (since Feb 2010) for students sending projects to the Initiative for Research and Innovation in Science (IRIS). The competition is organised by Intel in partnership with the Department of Science and Technology (DST) and the Confederation of Indian Industry (CII).

Three students from Pune (all in Chemistry) were selected to the national finals of IRIS, and two of these students did their project work at NCL, under the guidance of Dr. Chetan Gadgil and Dr. B.L.V. Prasad. Deepti Gnanaseelan worked on using beetroot extracts to produce metal nanoparticles, while Jayakrishnan Vijayamohanan attached chlorophyll to carbon nanotubes to examine its effect on carbon dioxide absorption.

DNA 7th Oct 2010



From left: Jayakrishnan Vijayamohan, Sarthak Chandra and Deepti Gnanseelan

3 city students head for national contest

They were selected by the Initiative for Research Innovations in Science

Gitesh Shelke

The research-based science projects of three city students have been selected for the prestigious Initiative for Research Innovations in Science (Iris), a national-level competition. The students will showcase their research projects in the final.

K Guruswami, National Chemical Laboratory (NCL) scientist and mentor with Exciting Science Group, an outreach programme of NCL scientists, told reporters on Tuesday that the three projects from Pune will compete with five other entries from various parts of India. The projects of three students, Jayakrishnan Vijayamohan of Kendriya Vidyalaya, Deepti Gnanseelan of St Helena's School and Sarthak Chandra of Vikhe Patil School, were selected.

The students were felicitated on Tuesday by Milon Nag, chairman of the Confederation of Indian Industry, Maharashtra zone.

Deepti's project was on 'Metal indicators from beetroot extract'; Jayakrishanan prepared a project on 'Extract of chlorophyll from leaves attached to carbon nanotubes to detect change in carbon dioxide absorption'; and Sarthak worked on 'Understanding of dissolving substances in water or other liquids to see increase in the volume of liquids after dissolving.'

The national science fair has entries from 10 categories of science. The Exciting Science Group aims to send more students from city schools for such competitions. It also wants to encourage students to pursue science and research.

Indian Express 6th Oct 2010

After 4 yrs, city students' projects enter national science and tech fair

EXPRESS NEWS SERVICE

OCTOBER 5

IE, 6 OCT 2010

AFTER four years, student projects from Pune have been selected for the National Science and Technology Fair, Initiative for Research and Innovation Science (IRIS), to be held at Nehru Science Stadium in Mumbai from November 18 to 21.

Earlier, city's Hamsa Padmanabham had qualified for it in 2006. Later, she won the international round and a minor planet was named after her for her remarkable work.

This year's IRIS awards were bagged by a student from Rajkot and two from Kolkata, and minor planets were named after them. This year among the junior category, Jayakrishnan V from Kendriya Vidyalaya and Deepti from St Helena's School have reached the national round. Sarthak Chandra, a Class XII student from Vikhe-Patil School has made it to the senior category.

While Jayakrishnan and Deepti were guided by scientists at the National Chemical Laboratory (NCL) in Pune, as a part of Exciting Science Group work carried out at NCL for the last two years. Sarthak has done his work at Homi Bhabha Centre for Science Education in Mumbai.

Talking about his project, Jayakrishnan said, "I attached chlorophyll pigments to carbon nano tubes, which are allotropes of carbon to observe the carbon dioxide absorption of plants. The rate of the absorption was increased substantially. If this phenomena is tapped upon, then it can produce remarkable results in controlling global warming. I verified the results by studying the change in weight of the plant which increased in a particular instance form 50 mg to 57 mg."

Sarthak studied the change in volumes of solutions after solutes are dissolved in them. His work has proved the common misconception wrong that the volume of the resulting solution remains the same and only mass increases even after solutes are dissolved. At a felicitation programme organised for them at NCL on Tuesday, Guruswamy Kumaraswamy, co-ordinator, Exciting Science Group said, "We stared the mentoring programme for the students in February. We helped them refine their ideas and provided with the infrastructure for the experiments, their innovation and persistent efforts helped them."

Times of India 6th Oct 2010

3 city students selected for national science fair

TIMES NEWS NETWORK

Times of India 6 OCT 2010

Pune: Three city students have been selected for the prestigious Initiative for Research and Innovation in Science (IRIS) national-level fair after a gap of two years. Now, the students are working on science projects that will be presented at the national fair. The students are part of the Exciting Science Group (ESG), a voluntary effort of the National Chemical Laboratory (NCL) scientists. The projects of the students will be monitored by the ESG scientists.

The three — Jayakrishnan Vijaymohan from Kendriya Vidyalaya, Deepti Gnanaseelan from St Helena's School and Sarthak Chandra from Vikhe Patil Memorial School — are busy on their respective projects that will be displayed at the national exhibition in Mumbai from November 18 to 21.

The students were felicitated on Tuesday at the hands of Milon Nag, chairman, Confederation of Indian Industries, Maharashtra zonal council.

Jayakrishnan is working on a project that will determine the change in carbondioxide when chlorophyll is extracted from leaves, while Sarthak is looking at the changes in quantitative measurement of water after a substance is dissolved in it. Deepti, on the other hand, is working on the beetroot extraction and metal indicators.

The students are part of the popular science talk that is conducted by ESG every month. K Guruswamy, co-ordinator, ESG, said, "The objective of ESG is to excite school students about science and technology. We are trying to create an interface between students and practising researchers."

The ESG invites top scientists from the Indian Institute of Technology, Bombay, as well at the Indian Institute of Science Education and Research, to conduct experiments, demonstrations, show videos and deliver lectures every month.

The ESG has also conducted these talks in Pune Municipal Corporation-run schools, the Jawahar Navodaya schools and the Valley View School in Kondhwa.

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'सायन्स फेअर'मधील तीन विद्यार्थ्यांचा सत्कार

दोन वर्षांनंतर निवड; एनसीएलकडून गौरव

पुणे, ता. ६ : इनिशिएटिव्ह ऑफ रिसर्च अँड इन्होवेशन इन सायन्सच्या (आयआरइएस) प्रतिष्ठित 'सायन्स फेअर' या विज्ञानाशी संबंधित असणाऱ्या स्पर्धेमध्ये या वर्षी शहरातील तीन विद्यार्थ्यांच्या विज्ञान प्रकल्पाची निवड झाली. त्याबद्दल राष्ट्रीय रासायनिक प्रयोगशाळेच्या (एनसीएल) वतीने या विद्यार्थ्यांचा सत्कार करण्यात आला.

एनसीएलच्या इन्होवेशन पार्क येथे मंगळवारी झालेल्या कार्यक्रमाला कॉन्फडरेशन ऑफ इंडियन इंडस्ट्रीजचे (सीआयआय) महाराष्ट्र विभागाचे प्रमुख मिलॉन नागप्रमुख पाहुणे होते. या वेळेस निवड झालेल्या जयकृष्णन विजयमोहन, दीप्ती ग्यानशीलन, चंद्रा सार्थक या तीन विद्यार्थ्यांचा सत्कार करण्यात आला. या तीन विद्यार्थ्यांपैकी जयकृष्णन आणि दीप्ती यांना एनसीएलच्या शास्त्रज्ञांनी मार्गदर्शन केले होते.

सायन्स फेअर ही स्पर्धा पाचवी ते आठवी व नववी ते बारावीच्या विद्यार्थ्यांसाठी दहा विभागांमध्ये घेतली जाते. त्यातील रसायनशास्त्र विभागासाठी या तीन विद्यार्थ्यांची निवड झाली आहे. स्पर्धेमध्ये विद्यार्थ्यांनी स्वतः संशोधन करून एक प्रकल्प सादर करायचा असतो. त्याबाबत माहिती देताना एनसीएलचे डॉ. चेतन गाडगीळ म्हणाले, "विद्यार्थ्यांनी सादर केलेला प्रकल्प किती नावीन्यपूर्ण आहे याकडे या स्पर्धेमध्ये लक्ष दिले जाते. तसेच विद्यार्थ्यांची सर्जनशीलता तपासली जाते. गेल्या दोन वर्षांत पुण्याकडून एकाही विद्यार्थ्यांच्या प्रकल्पाची निवड झाली नव्हती. परंतु, या वेळी एनसीएलच्या मार्गदर्शनामुळे आणि विद्यार्थ्यांच्या अथक प्रयत्नांमुळे तीन विद्यार्थ्यांच्या प्रकल्पांची निवड झाली आहे. विद्यार्थ्यांमध्ये विज्ञानाबाबत कुतूहल निर्माण करणे आणि पाठ्यपुस्तकाच्या बाहेर विचार करून विद्यार्थ्यांना अभ्यास व संशोधन करायला भाग पाडणे हा या स्पर्धेचा हेतू आहे."

या प्रसंगी मिलॉन नाग म्हणाले, "सगळीकडे गुणांना केंद्रस्थानी ठेवून शिक्षण दिले जाते असताना अशा प्रकारचे उपक्रम मुलांची जिज्ञासा वाढवण्यासाठी उपयोगी ठरतील. प्रत्येक क्षेत्रात विज्ञानाचा उपयोग होतो. त्यामुळे मिळालेल्या या ज्ञानाचा उपयोग मुलांना आयुष्यभर होईल."

'सायन्स फेअर' ही स्पर्धा १८ ते २१ नोहेंबरदरम्यान मुंबईच्या नेहरू विज्ञान केंद्रामध्ये होणार आहे. त्यात देशभरातून येणाऱ्या वेगवेगळ्या विद्यार्थ्यांच्या प्रकल्पातून सर्वोत्कृष्ट प्रकल्पाची निवड केली जाईल.