

Rohini Science Club, Ranchi

Annual Report – 2011-13

Seminar on Innovation & Research

On the eve of National Science Day, the club has organized a seminar on “Innovation & Research: Creating Challenges for youth of Jharkhand” 26th Feb 2012 at chamber hall, Ranchi. The objective of organizing this seminar was to inculcate INNOVATIVE MINDSET in the youth of Jharkhand. Innovation is about changing paradigms, creating new ideas, is a process which inspires change and creates value and “Innovative Ecosystem”. Govt. of India has declared 2010-20 as **Decade of Innovation**. The seminar had witnessed some champion speakers like Dr. Hariharan, DGM, MTI, SAIL as Chief Guest, Fr. C. Debrouwer, St. Xavier’s College, Dr. Hareshwar Dayal, Dept. of Economics, St. Xavier’s College, Dr. Mahesh P Lanka, Head-Training & GIS Services, KGVK, Mohammad Gias, Leading Business Icon, Mr. Binod Thakur, Social Development Specialist, Urban Development and Suresh Chandra Agarwal, Leading Businessman in Electrical Installations & Sr. member of Chamber of Commerce. Some of the underlining remarks of speakers were –

- Innovation demands Teamwork, it could not be done in isolation - Fr. Debrouwer
- Innovative College Classrooms are the need of the hour to make student attend college regularly - Dr. Dayal
- Situation compels us to innovate - Dr. Mahesh
- Innovation is must in government functioning - Binod Thakur
- The challenge is innovating new technologies - Md. Gias
- Converting innovation into business models - Dr. Hariharan
- Every Innovation ends-up with economics - Suresh Agarwal
- Leave behind the fear of failure to innovate - GVSR Prasad

The seminar concluded with key takeaways stating youth must work hard to convert their ideas into action or projects to attract young talent to come forward with ‘out-of-box’ ideas. The passion to undergo pains and achieve the mission is much more important than to have a big laboratories and costly equipments. Science Club is the right forum from where we can spread

this message among students of all levels who are working in research and development activities. We are grateful to our **sponsor's iZen, NIIT and Bharat Electronics for their valuable support on this occasion.**

Demonstration cum Workshop on Robots

On 4th March 2012, club has organized Robot demonstration Workshop at Ranchi Science Centre, Chiroundhi in association with Dept. of Science & Technology, Govt. of Jharkhand. We are thankful to Robotix Society of IIT Kharagpur for making the demonstrations by sending a team of 15 members on our request. The workshop was organized to boost up interest among the technical students of Ranchi studying in institutions like ITI, Polytechnic etc. The future of robotics is very bright and is emerging as leading solution provider in various sectors of development such as aviation, pharmacy, industry, defense, agriculture etc. The workshop was inaugurated by Sri Ram Shankar Choudhary, Curator, Ranchi Science Centre who later in his remarks emphasized on application of robots in daily life by having a better understanding of theoretical and practical aspects. The session started with the demonstration of videos and later live robots were put on floor by IIT Kharagpur students. Participants enjoyed and asked many questions with the IITians and also had opportunity to operate robots for the first time. During the concluding session, Prof. Dr. Arun Kumar, Director, Dept. of Science & Technology, Govt. of Jharkhand was present encouraged students to come forward to learn more about new technologies like robotics. We are very grateful to all our sponsors who have supported us in organizing this workshop. **(The sponsors were iZen, NIIT, Bharat Electronics, Vikas Bharti, Newton Classes and Sahaj)**

Observing Transit of Venus

Around more than 100 enthusiastic students, teachers, professionals gathered at Ranchi Science Centre on 6th June 2012 at 6.00 am to witness the beauty spot i.e. transit of Venus which was a rare astronomical moment occurred in this century.

Members of our club participated in this event very eagerly and prepared themselves with full gear such as dark glasses, books, questions for quiz, astronomical games, background notes of such event etc. Not only this, the club has designed its own card to distribute among the visitors wherein it is written – I SAW THE TRANSIT OF VENUS ON THIS DAY 6TH JUNE 2012 AT RANCHI

SCIENCE CENTRE. Every individual who received the card was very happy and decided to preserve it throughout their life to show the kids of the generations to come. Later the Ranchi Science Centre organized a quiz programme for students in the hall wherein Mr. Choudhary, Mr. Priya Ranjan and Ms. Savitaji all representing Ranchi Science Centre, initiated the programme and conduction of quiz was done by our club members Mr. Kunduji, Jyotishji, Ramashankarji and Ashokji. Children were very excited during the quiz and participated with great enthusiasm.

CATCH RAINWATER

Workshop on Rooftop Rainwater Harvesting for School Students

A workshop on rooftop rainwater harvesting was organized on 12th August 2012 at Chamber Hall, Ranchi. The objective was to sensitize school students about rooftop rainwater harvesting and importance of conservation of water. It was realized that people still are not convinced about the limitation of water sources and its availability. The feeling of abundance is still prevailing among the people and still many of us could not foresee the consequences of water shortage they are going to face in near future. City like Ranchi is facing today acute water crises.

The average rainfall in Ranchi is around 1200-1400 mm. There are days during summer when we don't get a drop of water from tap. Even after that the idea to hold the rainwater to recharge the ground water level does not come to in our mind. The workshop has sent a strong message through students about water conservation. The students took part in four different activities such as (a) RWH model designing (b) power point presentation on RWH (c) poster designing and (d) composition of songs on RWH. More than 60 students from various schools participated in this workshop. The chief guest and guest of honour on this occasion were Sri S.L.S.Jageshwar, Director, Groundwater Directorate, Govt. of Jharkhand and Sri G.K.Mohanty, Director, Indian Meteorological Department, Govt. of India, Ranchi. Speaking on the occasion quoting Mahatma Gandhi's famous line, he said – we have enough water for everyone's need but not for everyone's greed. He asked students to respect nature which has created this beautiful environment. Explaining the importance of rainwater harvesting, Mr. Jageshwar said that the runoff is more and recharge is very less in Jharkhand. Comparing the concept with the

banking process he said unless we deposit money in bank how can we withdraw?. He asked students to remember “Don’t allow water to walk but force it to underground where it falls”. Unless this message gets spread our objective is not fulfilled, he emphasized. The vote of thanks was presented by Jt. Secretary Sri Jyotish Prasad. We are pleased to inform you that the workshop was **sponsored by JINDAL STEEL & POWER, SAIL and AXIS**. We are very much thankful to all our sponsors for their valuable support.

Science Demonstration in Schools

During the month of July 2012, a team consisting Sri Salil Baran Kundu, Sri Ashok Kumar, Sri Ramashankar and Sri Krishna Vishwakarma has visited a far-off school located in Bundu –‘South Point School’ on call from the Principal Mr. Subhash Patni. RSC team did several science demonstrations before the students in this school encouraged school students towards science propagation. Students were given the opportunity to conduct experiments of their own with the available kits, gadgets and materials. The hall was full of excitement and students demanded similar programmes in near future. Looking at the importance of such programme, club has decided to start a series of such visits to rural schools in near future.

Math Mela

On the 125th birth anniversary of Srinivas Ramanujan, Govt. of India has declared the year 2012 as National Mathematics Year and asked to celebrate the birthday of Srinivas Ramanujan i.e. 22nd December every year as National Mathematics Day. Mathematics is a subject which deals with abstracts concept. This abstract nature of the subject leads to misconceived notions especially for elementary school children. Thus to make mathematics more interesting and meaningful, we have decided to design a new concept i.e. **MATH MELA** for children of primary classes.

This proposal was floated among select schools of Ranchi but due to paucity of funds we could not organize it in Ranchi. At the same time the idea was very well appreciated by Bihar SCERT and they immediately organized a programme for teachers and trainee students of teacher training college. Mr. Prasad was asked to conduct the programme at Patna which was very successful. Later he was called by DIET Bhagalpur to organize a Math Mela and the same was

organized at Bhagalpur. The objective of the MATH MELA was to make the children math-friendly by creating homely, joyful and tension free atmosphere. The idea was to encourage and give opportunity to children to work with material and hands-on with small gadgets, equipments which are easily available around them such as measuring tapes, weighing machines, calculators, calendar, notes & coins etc. Thus the scope of learning mathematics gets more attention informally and this leads to encourage the child to know more and learn more. The approach of this Math Mela was to make children learn various concepts easily without much stress and at the same time to encourage children to make mistakes and learn which is normally not encouraged either in school or at home. Thus an atmosphere of 'learning without fear' was created during the mela.

Teachers Day

On the occasion of Teachers Day, club members and teachers gathered at the club office and garlanded on the image of Dr. S. Radhakrishnan. Mr. Sastry read out the life of Dr. Radhakrishnan and made a power point presentation showing some touching photographs to remind us how during those days legendary scholar like Dr. Radhakrishnan use to think and work. Members discussed the present scenario of education and without getting disappointed, it was agreed that the club will continue to look at things positively and continue its small efforts.

Lifetime Achievement Award

Rohini Science Club has felt the need to recognize the accomplishments of great personalities who worked dedicatedly throughout their life for promotion of Science. Keeping this in mind the board of directors along with the executive committee of the club took a decision to Honour Fr. C. Debrouwer of St. Xavier College, Ranchi for his extraordinary contributions towards promoting science in Jharkhand. On 26th Feb 2012, he was conferred with the LIFETIME ACHIEVEMENT AWARD FOR SCIENCE PROMOTION. The award was presented by DGM, SAIL Dr. Hariharan.

18th May 2013

Menka Sumit Sen

Secretary