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Short Progress Report of SPSTI

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Since its inception on Oct. 14, 2009, the SPSTI has undertaken several activities and plans to take up many more new initiatives in the near future. A brief report is as under:-

1. Events during December, 2012

- **Lectures on Noble Prizes in Physics, Chemistry & Medicine/Physiology 2012** – Two schools each in Bhiwani and Hisar, Haryana
- **Monthly Lecture Series** – Role of Water in Chemical & Biological Systems by Prof. D. V. S. Jain, Emeritus Professor, Department of Chemistry, Panjab University, Chandigarh, held on Dec 2, 2012,
- **Mathematics Quiz for Schools Students of UT Chandigarh** (dates and venue would be announced soon)

2. November, 2012

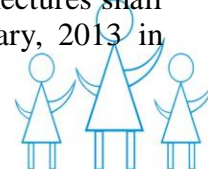
- **Nov. 3, 2012 - Monthly Lecture Series** – Uranium Contamination in Ground Water in Certain Areas of Punjab & Haryana, Speaker – Prof. Naresh Kocchar, Prof. Naresh Kochhar, UGC Emeritus Fellow, Center of Advanced Study in Geology Panjab University, Chandigarh
- **Celebration of Year of Mathematics -Popular Lectures**
 - Nov. 26, DAV College, Chandigarh – Contribution of India to Mathematics in Ancient Times – Speaker: Prof. M. S. Sriram, formerly Professor of Physics, Madras University, Chennai & (ii) Legacy of Srinivasa Ramanujam – Speaker: Prof. A. K. Aggarwal, Professor, Panjab University, Chandigarh
 - Nov. 26, 2012, Department of Physics, Speaker: Prof. M. S. Sriram, formerly Professor of Physics, Madras University, Chennai

3. Formation of Committees – Three Committees have been set up for the following:-

- Prepare design and estimate of mobile van
- Prepare standards design and procurement of standard mementos
- Prepare design of furniture for Museum of Music System and estimate thereof
- **Appointment of District Level Coordinators** – Districts of Kurukshetra, Karnal, Hisar, Faridabad, Rohtak and Panipat

4. Popular Lectures on Nobel Prizes 2012 in Physics, Chemistry & Medicine / Physiology – Last year, the SPSTI had held popular lectures on Nobel Prizes 2011 in Physics, Chemistry & Medicine / Physiology in schools and colleges. On the same pattern, this year also such lectures shall be arranged during December, 2012 and January and February, 2013 in schools and colleges / universities of the region.

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5. **Mobile Laboratory** – It has been decided to have a mobile laboratory known as ‘Circus of Science’. The details are being worked out. Recently, the Society has received a donation of sum of Rs. 5 lacs for the project. Earlier, Shri D S Bedi, Life Member of the Society had agreed to extend all help in this regard. A committee has been set up under the chairmanship of Prof. I. B. S. Passi to work out the details.
6. **IRIS Workshops for Science Teachers of Haryana** – September 29 at Ambala, Oct. 6 at Rohtak, Oct. 27 at Hisar & Nov. 24, 2012 at Gurgaon– More than 500 science and mathematics teachers and District Education Officers of 15 districts attend the workshops. IRIS (Initiative for Research & Innovation) is a joint project of DST, Govt of India, CII and Intel. The SPSTI has received funding from the Intel to organize four workshops for science & mathematics teachers of Haryana to sensitize them to motivate and guide enthusiastic students to make investigation based projects for INSPIRE & IRIS competitions.



8. **Popular Lectures** – Two popular lectures by distinguished scientists were organized during the year 2011.

The first lecture on ‘Brains, Computers and Intelligent Machines’ by Prof. Mriganka Sur, FRS, MIT, Cambridge, USA, took place on August 24, 2011 at the Tagore Theatre, Chandigarh. The lectures received an overwhelming response from the students and the teachers of the schools and colleges of Chandigarh, Panchkula and Mohali. More than 1,200 students and teachers attended the lecture.



The second lecture on ‘Innovations in Bio-science & Technology’ by Prof. D. Balasubramania took place in association with the Physics Colloquium on November 4, 2011 at the Physics Department Auditorium, Panjab University, Chandigarh. The lecture also evoked a lot of enthusiasm

from the students and teachers of the PU, colleges and schools of Chandigarh.



It is proposed to organize such lectures every year.

9. **Lectures on Nobel Prizes-2011** – Eleven lectures on the Nobel Prizes-2011 in Chemistry, Physics and Physiology or Medicine were organized in six schools, one college and one women university of Haryana.



10. **Awareness Programme on Emerging Areas of Science & Technology and Careers Options** - Most of the students of Class XI and XII, even UG and PG, are not aware of the emerging / exciting opportunities in science and technology. In order to expose them to such opportunities and generate interest among Class XI and XII and UG students to consider research in science and technology as a serious career option, the Society had invited nationally and internationally known scientists to deliver lectures on selected topics. We have so far organized the following awareness sessions:-

9th Feb., 2011 - A talk on 'From Knowledge to Entrepreneurship' for the UG science students of Panchkula. The speaker was Prof. D. Sahdev, IIT, Kanpur. This was appreciated by the students and teachers. They wanted us to organize more such programmes.



16th Feb., 2011 - An awareness programme on 'Emerging Areas in Science' of 3+ hours duration for the science students of classes XI & XII of Panchkula district was organized. The speakers were Prof. N. Sathyamurthy, Director, IISER, Mohali on Chemistry; Prof. Keya Dharamvir, PU on 'Nanotechnology'; Prof. Suman Beri, PU on 'Large Hadron Collider Experiment' and Prof. I. S. Dua, PU on 'Biotechnology'. More than 400 students and teachers of government and private schools attended the programme.

Apr 21, 2011 - Debate 'Human Cloning' followed by a lecture on 'Appreciating Life Through Science' by Prof. I. S. Dua, a recipient of Kalinga Prize, at the Bhavan Vidyalaya, Panchkula. It also got huge response from the schools of the Tri-city.

Dec. 4, 2011 – Lectures on 'Appreciating Life Through Science' by Prof. I. S. Dua in two higher secondary schools (about 800 students attended the lectures).

Feb. 27, 2011 – Lecture on 'Application of Technology in Life Sciences' by Prof. D. Balasubbramanian at the Echelon Institute of Technology, Faridabad (400+ students attended the lecture).

Feb. 27, 2011 – 'Current Trends in Science & Technology – Popular Lectures' at the YMCA University of Science & Technology, Faridabad for students and teachers.



Feb. 28 & 29, 2011 – 'Emerging Areas in Science & Technology' & Science Day at the Govt. PG College, Karnal – six lectures were organized. Prof. N. Sathyamurthy, Director, IISER, Mohali inaugurated the Seminar.



11. **Seminar on Important Topics** - Realizing the growing concern about deterioration and depletion of natural resources and environment, the Society has decided to launch awareness campaign amongst school children on Water Conservation & Management, Genetically Modified Seeds, Pollution of Natural Resources and Climate & Global Warming. A few members of the Society are noted earth scientists, who have shown keen interest to prepare easy to read and understand literature for school children. The Society had organized a seminar titled **‘Climate, Carbon & Copenhagen’** on **February 13, 2010**, at the **Panjab University, Chandigarh**. In addition, it holds awareness lectures on environment related themes from time to time.



12. **Monthly Lecture Series** – The Society organizes lecture on first Saturday of every month on a topic of importance and public concern involving science and technology at Panchkula. The programme was launched on April 7, first Saturday of April. So far five lectures have been organized.

First Lecture: April 7, 2012 - Genetically Modified Crops-Boon or Bane; Tuberculosis-How real is the threat? Speakers – Profs. I S Dua and Daisy Batis of PU, Chandigarh.

Second Lecture: May 5, 2012 - Tuberculosis - How real is the threat?. Speaker - Prof. S. K. Jindal of PGIMER, Chandigarh

Third Lecture: June 2, 2012 - How to save the self from self inflicted pollution? Speaker - Prof. R. K. Kohli, Dean (Research), PU, Chandigarh.




Society for Promotion of Science & Technology in India

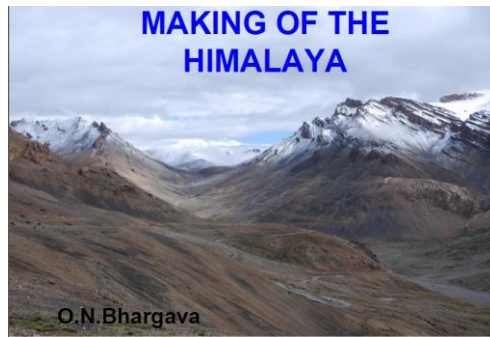
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Speaker
Prof. R. K. Kohli
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Fourth Lecture: July 7, 2012 - Making of the Himalaya- Speaker Dr. O. N. Bhargava, Director (Retd.), Geological Survey of India



Fifth Lecture: August 3, 2012 - Particle Physics & Cosmology - Speaker Prof. Jasjeet Singh Bagla, IISER, Mohali



Sixth Lecture: September 7, 2012 – National Power Grid & Its Management – Speakers Shri R.K. Arora, Director (Technical), Shri J. K. Juneja, CE/Planning & Shri S B Moudgil, CE System Operation & Commercial, Haryana Power Transmission Corporation



13. Summer Schools in Science & Mathematics for Girl Students Prerana - 2012 – The Summer on the pattern of the one held in 2011 was successfully organized from May 27 to June 24 at Kurukshetra. 34 meritorious girls belonging economically weaker sections attended the School. The emphasis was on learning of Physics, Chemistry, Biology & mathematics and health



14. **Summer Schools in Science & Mathematics for Girl Students Prerana - 2011-** The SPSTI in association with another NGO had identified more than 50 girl students of Class XI and XII, belonging to economically weaker sections. Several of them are keen to pursue careers in sciences. The SPSTI has been guiding them since November 2010 and organized a residential summer school of four weeks' duration (May 30 to June 26) for 50 girl students, who have moved into Class XII. The objective of the Summer School was to improve the conceptual framework of the students in sciences so that they can do better in Board level examinations and get admission in good colleges. The School was free for the students. The SPSTI mobilized resources from taking grant from the Governor of Haryana, the socially conscious organizations and the district administration.



The programme was successful as the participants learnt not only science subjects, but also soft skills. They also underwent detailed health check and were suitable treatment wherever required. Encouraged by the response from the students, we have decided to work with students throughout the year by holding monthly sessions of 2-3 days so that we can help them to solve their difficulties and guide them for further education. We have also started identifying 40 students of class XI for similar programme.

15. **Weekend Classes** – The SPSTI had identified 40 science students in Panchkula district, who have obtained 65+% in class X and taken science subjects in class XI and whose family income is not more than Rs. 1 lac per year. The objective of this project is to help them in their studies and guide them in making choice for careers. This programme would be similar to that of Kurukshetra. This was already been started but had to be discontinued due to inappropriate arrangements. It is proposed to be activated this year.



16. **Open House Discussion** – A unique meeting of a senior scientist Dr. Rakesh Mullick of GE Research Center, Bangalore with the UG engineering and science students was organized on medical technologies on Oct. 30, 2011. The meeting was extremely successful as it gave an opportunity to the students to have one to one interaction with the expert about industrial research, including career options in industrial labs. Encouraged by the feedback, the society has decided to have more such sessions in future.



17. **Science Week** – The SPSTI is exploring the possibility of hosting five days' long science week in the Tri-city comprising Chandigarh, Panchkula (Haryana) and Mohali (Punjab) and seven satellite towns (Baddi, Parwanoo, Kalka, Pinjore, Barwala, Dera Bassi & Kharar) around the Tri-city. There would be at least one programme in each of the three cities and seven satellite towns. In all there would be ten lectures, inter-school debate and inter-school science quiz. The proposal was discussed with the UT authorities and a proposal would be submitted to them for organizing during January, 2013.

18. **Earth Day**

- **April 21, 2012** The Day was celebrated on April 21 as April 22 was Sunday. The venue was at the Vidya Jindal Girls School, Hisar. Two eminent earth scientists – Prof. Devesh Sinha, Professor of Oceanography and Marine Geology, University of Delhi and Prof. Arundeeep Ahluwalia, PU, Chandigarh, delivered lectures. Earlier, there was a quiz competition on environment.



- **April 22, 2011** - The SPSTI celebrated the Earth Day on 22nd April, 2011 at the Vidya Jindal Girls School, Hisar. Two eminent earth scientists – Prof. Devesh Sinha, Professor of Oceanography and Marine Geology, University of Delhi and Prof. V. Rajamani, Jawaharlal Nehru University, New Delhi, addressed the students of several schools of Hisar.

19. **International Day for Biological Bio Diversity – May 22, 2012** - The Day was celebrated at (i) Shivalik Public School, Sector-41, Chandigarh. There was a quiz competition and lectures by two eminent biologist – Prof. I. S. Dua and Prof. R. K. Kohli, of PU, Chandigarh

NOTE – Please visit SPSTI at its websites www.spsti.org and www.Facebook.com/SPSTI for a glimpse of its activities.