Samskruti Foundation
Our Culture, Our Identity

Newsletter

Issue 17 March 2023 Hyderabad

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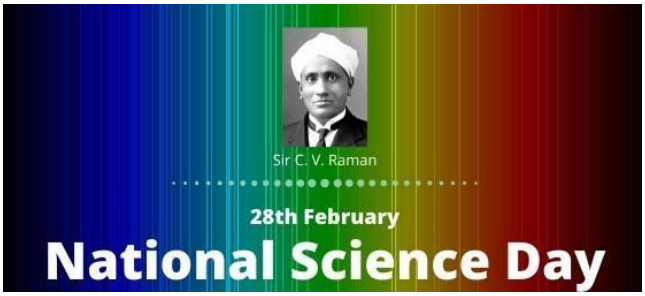
Samskruti Samachar

'Global Science for Global Wellbeing'

"As India enters 2023, the theme indicates India's emerging global role and rising visibility in the international arena" stated Union Minister of State (Independent Charge) Science & Technology,

Dr. Jitendra Singh, as he unveiled the theme for National Science Day 2023 – "Global Science for Global Wellbeing". Every year on 28th February, India celebrates National Science Day in honour of Indian physicist Sir Chandrasekhara Venkata Raman, who discovered the Raman Effect on that day in 1928. The National Science Day marks the anniversary of the announcement of the "Raman Effect," for which Sir C.V. Raman was awarded the 1930 Nobel Prize. Across the nation, events are held to spread the word about scientific discoveries and innovations centred on a central subject. Thanking Prime Minister Shri Narendra Modi for his thoughtful direction of the National Science Day's theme, topic, and programmes, Dr. Jitendra Singh said that the topic of "***Global Science for Global Wellbeing***" is timely as India prepares to take over as G-20 president and become a spokesperson for developing nations throughout Asia, Africa, and South America. India has acquired Global Visibility in the Comity of Nations under Prime Minister Modi, and we are ready for Outcome-oriented Global Collaboration to address the Global Challenges."



The Raman Effect is the phenomena by which the wavelength of a beam of light changes when it interacts with molecules in a sample. Events such as scientific fairs, talks, debates, and quizzes are held throughout India in honour of this day. The goal of these gatherings is to encourage young people to develop a scientific mindset and choose a career in the field. Scientific achievements made by Indian researchers and the value of science and technology to the nation's progress are emphasised as well.

We need a spirit of victory, a spirit that will carry us to our rightful place under the sun, a spirit which will recognize that we, as inheritors of a proud civilisation, are entitled to a rightful place on this planet. - Dr. C V Raman

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Fostering Scientific Temperament

Samskruti Foundation organized Field Visits to National Institutions of Importance and Scientific Establishments. Students of Higher Education Institutions interacted with scientists and explored future career opportunities. The goal of the project was to encourage students to work on sustainable technology and foster in them a scientific temperament. A total of 16 Colleges participated in the study tour conducted to 8 Scientific Institutions – National Institute of Nutrition, Bharat Electronics Limited, Indian Institute of Millets Research, Geological Survey of India, Survey of India, Nuclear Fuel Complex, Indian Institute of Oilseed Research, and Research Centre Imarat. Students familiarized themselves with the importance of Science in various technological areas and gaining entrepreneurship skills. Key learnings of the students were documented.

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The Coordinators of Samskruti Foundation for the Study Tour were mentored appropriately for the smooth conducting of the program. The SF Coordinators were made to -

- understand the vision, mission, main activities and key people
- get the list of the students along with their Aadhar numbers and other details
- share the Google Form for this purpose and communicate with the college regarding student and faculty participants (https://forms.gle/YszVgK1kZPVnhCLw6)
- share a small draft about the institution with the college students to help them prepare for a meaningful visit and discussion.
- coordinate with the Scientific Institution regarding the date and the time of the tour.
- confirm the transportation plan, hiring a bus (applicable to a few colleges only)
- plan for lunch/ Snacks for the students
- coordinate with the Scientific Institution to arrange food in the canteen within the institution on payment basis (bill on the name of Samskruti Foundation)
- submit an estimate of the expected expenditure (personal transportation/ food etc) along with account details in writing; arrange for an advance payment
- plan the itinerary in detail - date and time of the tour, activities that will take place during the tour, the time allocated for each activity etc.
- communicate the plan with the college faculty in detail to ensure there is no communication gap. (time, date, identity proof, phones allowed or not, driver's ID, maintaining discipline, food, ensuring a good interaction with the experts, submitting a report immediately after the tour, carrying a notebook and pen etc.)
- share the google form for taking students' feedback and experience sharing - immediately after the visit is completed, before they begin their journey back to college or home (https://forms.gle/aL6Zszwiaub8EQyh9)
- identify potential leaders: During the visit, try to identify at least three student leaders who may be a good choice to take leadership roles in respective Cultural Leadership Centres (CLCs) later on. These students should preferably be from the second year and should not have NSS responsibilities.
- Document the tour: Fill out the SF Coordinator report (google form) immediately after the visit, along with six pictures and one video. Include information about the identified student leaders for CLC activities in the future.
- submit the report at https://forms.gle/g942NYbCcV1eAjMC9

11 Colleges conducted the Study Tour on 28th February while 5 Colleges scheduled the Study Tour on 10th and 16th March due to logistic reasons. 25 students from each college, with a nodal faculty, and SF Coordinator, visited the Scientific Institutions.

Total Participants

275 Students
11 faculty
11 SF Coordinators

S.No.	Date of Visit	Name of the Institution	Name of the Scientific Institution
1	28-02-2023	Aurora's Technological and Research Institute	Bharat Electronics Limited
2	28-02-2023	Vignan's Institute of Management and Technology for Women	Bharat Electronics Limited
3	28-02-2023	Bharat Institute of Engineering and Technology	Indian Institute of Millets Research
4	28-02-2023	BVR Institute of Technology	Indian Institute of Millets Research
5	28-02-2028	Vignana Bharathi Engineering College	Indian Institute of Oilseeds Research
6	28-02-2023	Vignana Bharathi Institute of Technology	National Institute of Nutrition
7	28-02-2023	Siddhartha Institute of Technology & Science	National Institute of Nutrition
8	28-02-2023	Malla Reddy Institute of Engineering & Technology	Nuclear Fuel Complex
9	28-02-2023	Malla Reddy Engineering College	Nuclear Fuel Complex
10	28-02-2023	SP College	Survey of India
11	28-02-2023	Vivekananda Govt. Degree College	Survey of India
12	*10-03-2023*	*CMR College of Engineering and Technology*	*Geological Survey of India*
13	*10-03-2023*	*Mahaveer Institute of Science and Technology*	*Geological Survey of India*
14	*16-03-2023*	*Visvesvaraya College of Engineering and Technology*	*Research Centre Imarat - DRDO*
15	*16-03-2023*	*Sree Dattha Institute of Engineering and Science*	*Research Centre Imarat - DRDO*
16	*16-03-2023*	*Sreyas College of Engineering & Technology*	*Research Centre Imarat - DRDO*

Celebrating National Science Day through Cultural Leadership Centres

Samskruti Foundation has developed Cultural Leadership Centres in many educational institutions across India. The aim is to preserve and promote our cultural ethos through various initiatives. One such initiative is encouraging the development of scientific temper in the minds of the youth, as mandated by the Constitution of India. National Science Day provides a platform to achieve this objective.

A few hours of field interaction between college students and senior personnel from leading science and technology organizations was organized. Our aim is to provide students with a glimpse into the scientific activities carried out in such organizations, and to inspire them to pursue a career in science and technology. The visit and interaction with senior personnel from the Scientific Institutions would be highly motivate the students and help foster their scientific temper. Nodal officers for this interaction were designated from each Scientific Institution who were in contact with our coordinators.

Samskruti Foundation also sent out letters to CLCs for considering conducting an activity, such as a seminar or workshop, on the topic of India's contribution to science or global science for global well-being. An idea was mooted to invite an expert to deliver a speech on these or any other related topics. This will help the students learn about the importance of science and its impact on society, and encourage them to develop an interest in scientific research.

Another way of celebrating the National Science Day could be to plan a short study tour to any organisation that works in the field of science, technology, and research. This educational trip would provide the students with an opportunity to observe and understand the practical applications of scientific theories and principles, and help them develop a scientific temper.

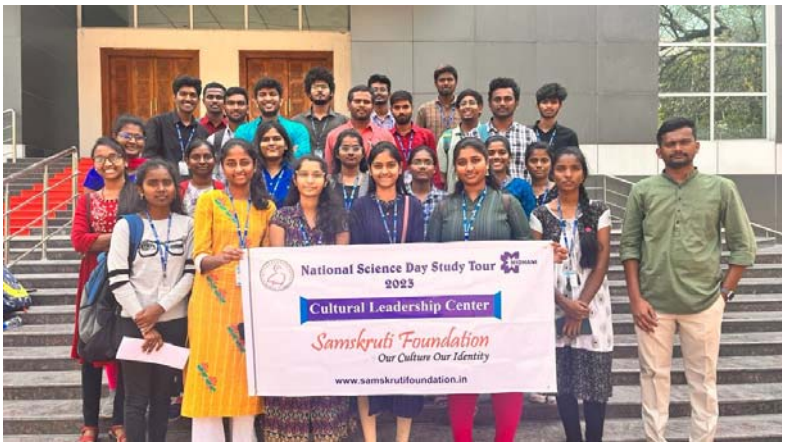
An overview of the experiences shared by the students and the learning they gained from the Study Tours

28th February 2023

Bharat Electronics Ltd Aurora's Technological and Research Institute Vignan's Institute of Management and Technology for Women	**Learnings:** About BEL industry; How BEL is cooperating with and supporting the Indian Army Methods of military communication; Different signal transfer ways; Various operations related to submarine, antennae, EMC, Radars, etc.; Electromagnetic Compability (EMC); Mechanism of radars and other machines used by the Defence mechanisms, testing signals and frequencies in submarines and warships; Use of electronic components in larger devices; Processes for producing electronic devices; Environmental testing importance; Advantages of having rich manufacturing background of electronic components in a country; Implementation of theoretical knowledge in a practical world with lot of noise; Electronics warfare system; BEL's vision to become leader in EW system. BEL is making the electronic weapons for military, navy, and aircraft.; About the aerospace and electronic components, especially Varuna narrow bandwidth and broad band width and vibrational chambers; How systems are checked according to our environment; How the signals are transmitted or received; How are jammers used; Which metals are used to make this equipment; Where are we using this type of equipment mainly; Vehicle mounted jammers for VIPs; Noise cancellation systems Anechoic Chambers; BEL's support for E-Sagu program in Kothapally village
Indian Institute of Millets Research Bharat Institute of Engineering and Technology BVR Institute of Technology	**Learnings:** The hard work of a farmer; The uses of nuts; Different types of plants and seeds; Different types of insects; The process of cultivating; Uses of pesticides; Different types of millets; strategic research on sorghum, pearl millet, finger millet, foxtail millet, kodo millet, little millet, barnyard millet.

Indian Institute of Oilseeds Research Vignana Bharathi Engineering College	**Learnings**: Different types of oilseeds – Groundnut, Sunflower, Sesame/Til, Safflower, Linseed, Soybean, Rapeseed and Mustard; purity of oilseeds; hybrid varieties; nutrition management; insecticides; pesticides; research methods
National Institute of Nutrition Vignana Bharathi Institute of Technology Siddhartha Institute of Technology & Science	**Learnings:** About food, nutrition and health; What is a proper diet; What are requirements for a proper diet; Diet Plan; Different types of Diabetes; RTPCR testing; How does Diabetes affect the retina of the eye; Good nutrition values; Detailed view of labs; Ethics of nutrition; Bio chemistry ; Food to follow; Food products that are healthy; Testing samples of food; Daily morning exercises; How immediate weight loss effects our health; Knowing macro and micro nutrients; About ICMR NIN research centre background; How to experiment on different species and collating data; Different perspectives of thoughts on problem solving nature; Learning about nutrition and proper diet; How to do research and major steps; Equipment used for research; How diet is important for a person to lead a healthy life and what diet to follow; HPCL & UHPCL and different working systems and some of the labs like food chemistry and many more; How proteins, vitamins are purified; The museum is also very interesting.
Nuclear Fuel Complex Malla Reddy Institute of Engineering & Technology Malla Reddy Engineering College	**Learnings**: How nuclear fuels are manufactured, About Nuclear Power, its importance, advantages; How nuclear power components are prepared; Only nuclear fuel complex in the world which converts ore to core; Successful records in manufacturing nuclear industry components; Development of different stages in nuclear energy; Production of elements like uranium from thorium and making them into tubes; Processing of metals like Zirconium, Thorium and Uranium; Why nuclear reactors are important for India; Amazing security checks; Shift from fossil fuels, renewable sources of energy (wind, solar, atomic)
Survey of India Sardar Patel College Vivekananda Govt. Degree College	**Learnings:** Informative Photographs and equipment; Picturization on GPA / GPS; How to use surveys; Geography; Drone Systems; 3D Locating Systems; Use of drones in agriculture, forests; Calculating distance using drones; Different types of Maps; Building Advanced Maps; Modern Data Collection; New Mapping Techniques; Continuously Operating Reference Stations(CORS)

Glimpses of the Study Tour




SURVEY OF INDIA


VIVEKANANDA GOVT. DEGREE COLLEGE


HEMA
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National Science Day Study Tour
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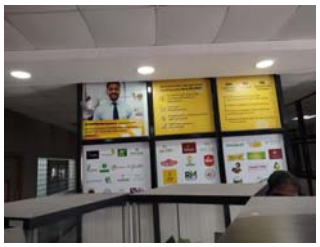
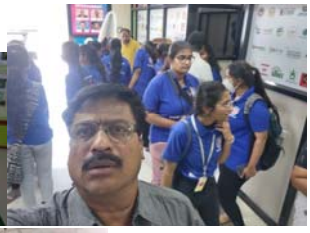


Adichi Millets

















Om Namah Shivaya - Dispelling Ignorance and Darkness from Life – India's Great Cultural Connect - Maha Shivaratri – was celebrated on 18th February throughout the country with great fervour and devotion. Mahashivaratri is a Hindu festival celebrated annually in honor of Lord Shiva, one of the principal deities in Hinduism. From a scientific perspective, the celebration of Mahashivaratri has a few potential significance:

Solar and Lunar Influence: The festival of Mahashivaratri is celebrated on the 14th night of the new moon during the Hindu month of Phalguna (February/March). This timing is based on the lunar calendar and signifies the end of winter and the beginning of spring. Additionally, it is believed that during this time, the alignment of the planets and the position of the sun and the moon create a powerful energy field that can impact human consciousness and spiritual growth.

Yogic Significance: Lord Shiva is often regarded as the "Adi Yogi" or the "first yogi," and Mahashivaratri is considered a night of yogic practice and meditation. It is believed that during this time, one can experience heightened states of consciousness and access deeper levels of awareness through yogic practices such as meditation, chanting, and fasting.

Cultural Significance: Mahashivaratri is celebrated with great enthusiasm across India and is an integral part of the country's cultural and religious heritage. The festival brings people together to celebrate and honor the divine aspects of Lord Shiva, promoting social harmony and unity.

Overall, while the celebration of Mahashivaratri is rooted in Hindu mythology and tradition, it also has scientific and cultural significance. The festival provides an opportunity for people to come together and connect with each other, their spiritual selves, and the larger cosmos.

From the Chairman's Desk

Dr. C. Umamaheswara Rao
IAS (Retd.)

To raise more attention to scientific issues that have an international influence on people's well-being, the theme "**Global Science for Global Wellbeing**" was chosen this year. We celebrate 28th February as National Science Day every year commemorating discovery of the *Raman Effect* by Indian physicist Sir C. V. Raman. In modern India, the "Ease of Living" provided by scientific developments in people's homes has expanded from universities to rural areas. With the dawn of this new era comes the possibility for experts all across the globe to work together on initiatives that will ultimately benefit mankind. A refocus on scientific pursuits has helped India accelerate its progress towards its goal of becoming an economic and technological superpower. We should think about the amazing resources science has given us. Science has allowed us to improve the quality of our lives, have a global influence, and find solutions to some of the world's most serious challenges. To avoid harming the ecology or other species, however, we must recognise that our activities must be informed by universal principles.

Samskruti Foundation's Study Tour program of Scientific Institutions in Hyderabad region met with tremendous success as students from 16 colleges gave their intent to participate. 11 colleges visited 8 such Scientific Institutions on 28th February while 5 colleges scheduled their visit to 10th and 16th March. The collaborative effort motivated the students to learn about the progress of science and technology and chalk out careers in science. The feedback by students was encouraging and this helps us to conduct more such programs for the benefit of youth.

The scientific community has a tremendous opportunity to better the lives of people everywhere, but only if we utilise the available resources wisely. We need to apply our scientific understanding to come up with strategies that improve global health without upsetting the planet's fragile ecological balance. To achieve this goal, one must have a strong conviction in the need of advocating for universal principles like compassion and respect for all life. Swami Vivekananda's statements, in which he underlined the need of contemporary science under the direction of timeless spiritual ethos, ring true in this setting. To solve the world's complicated problems, we need more than just Western materialism or Eastern spiritual ethos. Instead, we need to combine the insights of spiritual traditions with the findings of science if we want to create a future that can support everyone.

Let us join forces to use science to its fullest potential for humanity's benefit. Let us reaffirm our commitment towards fulfilling our collective scientific responsibility and leveraging the power of science for human progress by using our scientific tools effectively and guided by universal values to make a meaningful impact in creating a brighter future for all beings.

Samskruti Foundation

Samskruti Foundation is a registered trust consisting of prominent and accomplished senior civil servants, professionals and corporate citizens. It is constituted under section 4 of Indian Trust Act 1882 with registration no. 000124/2009. It has been striving towards promoting Nation Building activities among the youth of the society in Telangana and across India.

Our Vision – To be National Resource Center for Culture
Our Mission –To preserve, protect and encourage practice of the Bharateeya Culture and Ethos through research, education, training and Dialogue

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Edited, Printed and Published by Sri T Rambabu, Co-convener
Editorial Team – Sri G Natraj, Dr. Vivek Modi