



# **National Science Day - Feb 28, 2020**

## **Women in Science**

The National Science Day is celebrated in our country on February 28 in honor the discovery of the Raman Effect on 28 Feb, 1928. Modern science developed in India in the course of the renaissance movement initiated by the stalwarts like Raja Ram Mohan Roy and Ishwar Chandra Vidyasagar in the nineteenth century. The renaissance movement produced a host of luminaries in all fields and science was no exception. Front ranking scientists like J C Bose, Acharya P C Ray, C V Raman, Ramanujam, S N Bose, Meghnad Saha and many more emerged. The renaissance also had its impact on women in bringing them to the forefront of social movement and pursuit of science. Following the footsteps of illustrious women like Madam Curie, Rosalind Franklin, Emmy Noether and others, a good number of women from India also made their mark in the field of science. Janaki Ammal, Kamala Sohonie, Kamal Ranadive, Asima Chatterjee were a few names among those front ranking women scientists. The National Science Day this year is dedicated to the struggle of the women scientists in the country.

Breakthrough Science Society observes the day with the objective of taking the life struggles and contributions of the great men and women in science to the people at large to foster a scientific bent of mind and to cultivate scientific temper in the society.

Breakthrough Science Society Telangana state chapter organised various programs as part of observance of the National Science Day.

A seminar on “THE ROLE OF WOMEN IN SCIENCE” was held in Stanley College of Engineering and Technology, Hyderabad. Dr Rukmini, HOD Department of Astronomy, Osmania University, was the main speaker. Citing the illustrious example of Madam Curie and her life struggle she urged upon the students to emulate it. She also expressed the need for developing scientific temperament in the society. The principal of the college and Mr R Gangadhar, BSS state convenor, also spoke on the occasion.



On Feb 28, a seminar was organised in Hindi Mahavidyalaya Degree College. Ch.Murahari, Advisor BSS state chapter and Mr Hemasekar, Assistant Professor, Methodist college were the speakers. They spoke on the role of science in the development of the society. They also expressed their concern about the science education becoming career centric in the present day education



A Discussion was held at Hotline High School, Hyderabad. Mr D Gangaji, President of BSS Hyderabad district and Mr Srujan, BSS State Executive Committee member explained the importance of developing scientific bent of mind.

On the occasion of the National Science Day, discussions and membership drive were organised in St Pious Degree and PG College. A total of 270 students and 23 faculty members became members of BSS.



Discussions were held in two BC Welfare hostels in Sangareddy district. Mr Usha Kiran, BSS State Executive Committee member addressed the students.



On Feb 28, National Science Day was celebrated at Donikona High School, Jorhat. Dr Dilip Kr. Dutta, Retd. Scientist, RRL was the main speaker. Others who spoke were Dr Dipti Kakoti (Prince of Wales College) and Dr Gobind Bora (Assam Agricultural University).



A science model exhibition was also conducted in the school.



On 28 February, BSS Tripura chapter organised a discussion program at Tripura University. The topics taken up were 'Science and Scientific thinking in daily life', 'Darwin's Evolution Theory' and 'Types of Topological Spaces with Notions of Sets'. Dr Priyasankar Chaudhuri from the Dept of Zoology, Dr Binod Chandra Tripathy from the Dept of Mathematics and Dr Anirban Guha from the Dept of Physics took part in the discussions. The program began by observing one minute silence in memory of science martyrs. Mr Raju Acharjee, Secretary, BSS Tripura Chapter gave an introductory talk. Dr. Sarmistha Bhattacharjee, HOD, Dept of Mathematics, faculty members and students of various departments participated in the discussions.

The program ended with taking the pledge: *"On the National Science Day, I take pledge to be guided by scientific outlook and social responsibility. I shall try to inspire others around me, relatives and friends to be free of unscientific beliefs and superstitions. I shall oppose pseudoscience, false claims and religious bigotry in all possible ways. I shall always uphold the banner of struggle to spread scientific temper and outlook based on truth"*.

The pledge taking programs to motivate students to cultivate scientific temper were also organised in Bardowali HS School, Amtali H.S. School and Badharghat HS School.



National Science Day was observed with great enthusiasm in several parts of Jharkhand. On 28 February, a discussion on "The role of women in the development of science" was organized by the Einstein Club at Ghatshila. Mr Chandan Kundu, the secretary of the club was the main speaker.

Similar programs were organised in Dhalbhumgarh High School & Bhangabandhi High School, Ghatshila, where Mr Sushil Giri and Mr Satyaranjan addressed.



**Science Day program at Ghatshila**

A Seminar on " Women in Science" was organized at Tata College Chaibasa . Mr Kanay Barik was the main speaker.



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A science conference was organized on 1<sup>st</sup> March, by the BSS Jamshedpur chapter. Dr. Amitab Bose and Mr Prasant were the main speakers.





As a part of celebration of National Science Day, Universe Science Forum (USF) organised various competitions such as Essay writing, Poster making & Science Quiz on 1<sup>st</sup> March 2020 for school students of 6<sup>th</sup> to 12<sup>th</sup> standard. About 120 students from 12 different schools of Ahmedabad city participated in the program. A photo exhibition on 'Raman Effect and the life of Sir C. V. Raman was also arranged by USF. After the completion of the competitions, brief talks and a few demonstrations were conducted. Shri Deepak Joshi (Retd. IAS) spoke on 'The contributions of women in science'. He talked about the life struggles and works of great women personalities like Katherine Johnson, Rosalind Franklin, Dr. Anandibai Joshi, etc. Pointing towards the girl students he encouraged them to take inspiration from these women scientists and to aspire for a research career.

Prof. Mitul Makwana of L. D. Engineering College, Ahmedabad spoke on 'Importance of Basic Science'. He explained various basic principles of science such as Bernoulli's principle, working principle of air conditioner & refrigerator, etc. through simple demonstrations.

Shri Nishchay Singh, a computer engineer, a science populariser & a U.S.F. member, gave a number of demonstrations explaining 'The science behind colours' including the role of cone cells in human eye etc.

The chief guest, Prof. N. N. Rogheliya, a popular mathematician, former HoD, Dept. of Mathematics, M. G. Science Institute, Ahmedabad, explained through demonstrations & math games how mathematics play an important role in our daily activities. The audience and students listened to his talk with great interest.

The audience included school students, teachers and parents. At the end of the program, prizes & certificates were distributed





A view of the audience above and a view of the experiment demonstration below



Breakthrough Science Society, Kerala chapter organised extensive programs in almost all the districts in the state to observe the National Science Day.

### Thiruvananthapuram

Feb 21: As part of National Science Day lecture series, Dr Luis Sanchez Munoz, National Museum of Natural Sciences, Madrid, Spain presented a lecture titled “Meteorites: rocks and minerals from outer space” at Priyadarsini planetarium.



Feb 28: Dr Sasikumar, former scientist CESS, Trivandrum gave a talk on “Scientific temper” at Eswara Chandra Samskarika Kendram, Thiruvananthapuram.



Feb 28: Dr Sarita Vig, Dept of Earth Sciences, IIST, Trivandrum gave a talk on “Role of women in understanding the fundamental properties of stars” at the Science day program jointly organised by the Dept of Geology, Kerala University and Breakthrough Science Society.



**KOTTAYAM**

Feb 21: A ppt presentation depicting the contributions and life struggles of great scientists in the world and particularly the women scientists from India and abroad was made at the MT Seminary school Kottayam. Bhadra Gopi and P G Sasikumar conducted the program.

Feb 27: A seminar and a session of 'Learning science through experiments' was organised at MYMA English Medium School, Kanjirappally. K K Raveendran, P G Sasikumar, Vidya R Sekhar, Amalraj and Raju Vattappara, conducted the discussions and demonstrations.



Feb 26: BSS and the Dept. of Physics, KE College Mannanam organised a discussion on the importance of the science day and the contributions and life struggles of scientists, particularly the women scientists from India at Govt, HSS, Arppookara.

Feb27: A discussion on the contributions and life struggles of scientists, particularly the women scientists from India was held at Govt. HSS, Kudamaloor. Dr Jaiby, Dept of Physics, KE College, Mannanam, P N Thankachan and four PG students of K E College conducted the program.

Feb 28: A sky watch program was organized at CMS LP School, Kadamury. Binoy P Johny, P G Sasikumar, K K Raveendran conducted the program.



Feb 28: A science exhibition was organized at NSS College, Vazhoor. P G Sasikumar, T V Saji and Binoy P Johny demonstrated various experiments.



## Kerala

Feb.28: National Science Day observed at Devivilasam School Parambuzha, near Kottayam. A team from BSS including Ananthkrishnan, Bhadra Gopi, Parvathy, and Yadukrishnan conducted the program.



Feb.28: National Science Day observation program was organized by 'Samgramam' the cultural wing of Kerala Gazatted Officers Association at RIT Pampady. Dr R Sasikumar, Director CAPE, inaugurated the program. Prof P. N. Thankachan, Secretary, BSS, Kerala was the main speaker. This was followed by a sky watch program.



**Sky watch program at RIT Pampady, Kottayam**

Feb 28: A quiz competition was organised by JCI Kottayam South and Galileo Science Centre at MT Seminary School Kottayam. Prof P N Thankachan and Bhadra Gopi conducted the program. Dennis Samuel, President JCI Kottayam South, Head Master Jacob Abraham, P S Sreshkumar, Yadukrishnan and Bharath Nair spoke on the occasion.





**ERNAKULAM**

FEB 28: National Science Day was observed with a Sky watch program at Millupadi Aluva. Galileo Science Club organized the program. K S Harikumar, P P Sajeevkumar. A G Lasitha, Saketh M, S Arya Anand and Jithin Krishna conducted the program.



February 29: Sky watch at and astronomy class was organised at Kuthiathodu Lourdes Fathima Church. Fr Pious inaugurated the program. Prof. Francis Kalathungal, P P Abraham and P C Thankachan conducted the class and sky watch program.



March 3: A talk on 'Women in Science ' was organised in Al Ameen College, Aluva. Mr K S Harikumar, BSS State executive committee member addressed the students.



March 5: An astronomy class and sky watch program was organised in Cochin college. Francis K, Harikumar K S, Sajeev kumar P P and Thankachan P C conducted the class and sky watch program.



### TRISSUR

February 25: National Science Day was observed in Kerala Varma College, Trissur. Dr Babu P S, President, BSS Kerala spoke on the development of science in India, particularly during the renaissance movement and on the contributions of women scientists from India. Dr Sheenaja, HoD, Zoology, also addressed the students.



### WAYANAD

February 28: National Science Day was observed in Govt. HSS, Odappalam, Near Sultan Bathery.



**ALAPPUZHA**

Feb28: A discussion and sky watch program was organized by Punthala Yuvajana Vedi Amplappuzha. Dr Hariprasad , Mr K Sivankutty, Mr M Muralidharan and G Balraj conducted the discussion and sky watch.



## KOZHIKODE

February 28: National Science Day was celebrated jointly by BSS and the Regional Science Centre and Planetarium, Kozhikode. Dr Reshmi L , IIST, Trivandrum delivered a talk “The unknown universe: Fast radio bursts”.



**Mr. Manas Bagchi , Director, Regional Science Centre and Planetarium (RSCP) delivering inaugural address.**



Feb 28: National Science Day was celebrated at Providence Women's College, Kozhikode. The program was jointly organised by the Dept of Physics and Breakthrough Science Society. Dr Reshmi L, faculty member, IIST, Trivandrum presented a lecture titled "Pride and prejudice: the evolving story of women scientists".



Breakthrough Science Society , Karnataka chapter organized several programs in different districts to observe the National Science Day 2020.

In SJR College for Women Rajajinagar, Bengaluru, a panel discussion was organized with panelists. Dr Sarbari Bhattacharya ( Asst Professor, Dept of Physics, Bangalore University spoke on the need of scientific bent of mind and stories of Women Scientists Maharani Chakravathi & Smruthi Rao. She emphasized the need that women be part of like minded supportive groups. Dr Jyotsana Dixit ( Science writer, Post Doc , Indian Institute of Science) spoke on how one can apply scientific method in daily lives with examples and left a remarkable note on the life of Madame Curie. Ms Rajani K S (State Secretary, BSS, Karnataka) paid tribute to the life of Sir C V Raman, on whose contribution the day is observed along with excerpts from the life of J C Bose and P C Ray who are considered pioneers in Indian Science. She spoke about how women today are not encouraged to pursue higher education given the social mindset that prevails in the society. She inspired the 250 girl students who attended the program to become part of a larger group to air their ideas, question, seek answers and become champions of positive change in the society .



Bengaluru: In Mangalore Institute of Management Science, Kengeri, a talk on “Social media and the menace of Fake news” was organised on 28 Feb. Mr Satish Kumar ( President , Breakthrough Science Society, Karnataka) was the main speaker. The talk was followed by an interactive session with the students.



Davangere: BSS Davangere chapter organized a program on Women in Science . Dr Hema (Member, Medical Service Center) and Mr Manjunath (District Convener, BSS Davangere) addressed the gathering of 100 students at DRM PU Science College.





Gulbarga: BSS Gulbarga chapter organized a program at SBR school on Robotics and Science . Ms Rashmi (BSS, State executive committee member) & Mr Narayan Inaamdaar (Retired Scientist, ISRO) addressed. Around 300 students participated in the program.



Breakthrough Science Society, Mysore chapter organised a talk on 'Women in Science and today's opportunities' at JSS School. The HM of the school addressed the students.

Dharwad: BSS, Dharwad chapter organized a Miracle Busting program at KE Board School . Ms Deepa (BSS District convenor) demonstrated various miracles and explained the science behind the same to about 300 students . A meeting of Senior Citizens was also held where Ms Rashmi spoke on the significance of the National Science day.



Madurai: An inter-collegiate students meet was organised on the occasion of the National Science Day in association with the Dept of Physics, Mannar Thirumalai Naiker College. Ms Selvi, convener, BSS Madurai welcomed the gathering. Dr. Krishna Kumar, Thiagarajar college, spoke on 'Women in Science'. Dr.Latha, Madura College, presented a motivational talk. Students from 9 colleges participated in the program. A skit on Bruno was performed by the participants.



Chennai: National Science Day was observed in Govt High School, Mambalam, Chennai. The program was inaugurated by the HM, Dr Seethalaxmi. Mr Ilango Subramanian, a science communicator explained the Raman effect and the life of C V Raman. Dr S H Thilagar, Vice President, BSS Tamilnadu spoke about the life of a few illustrious women scientists from India and abroad. Mr Sivakumar, teacher of the school gave the vote of thanks.



Coimbatore: A public program was organised in a free tuition centre near the Town hall. Mr Vignesh, the local organiser of BSS gave an introduction about the National Science Day. Mr Sivakumar M, spoke about the necessity of cultivating scientific outlook in day to day life. Mr Sabari, a student of PSG College, made a presentation on science model making. A movie clip on Sunita Williams was also shown.



March 1: BSS Muzaffarpur chapter in association with Mother Teresa Vidyapeeth School organised a seminar on “Science and scientific outlook”. Ms Neeta Kumari, the school co-ordinator presided. Dr Kanay Barik (BSS State Secretary, Jharkhand) was the main speaker. Mr Vijay Kumar (BSS) and Mr Satish Kumar (Director, Mother Teresa school) also spoke. After the seminar, in the evening a sky watch program was organized. BSS district convenor Ashutosh Kumar conducted the program.



March 2: At Daudi International School, a seminar and sky watching program was organised. Dr Irshaad Hussain , the school principal presided. Dr Kanay Barik (BSS State Secretary, Jharkhand) was the main speaker. Mr Vijay Kumar(BSS), Mr Bali Afrez (Vice principal) and Mr Amit Kumar (science teacher) addressed.



## West Bengal

In West Bengal, the Science Day was observed extensively by organising various programs in schools, colleges and public places in different districts of the state. The programs were organised by the BSS chapters as well as by a number of science clubs affiliated to BSS.

**Kolkata:** The day was observed in Jadavpur University, Calcutta University (Rajabazar Science College), Jogamaya Devi college and Charuchandra college. Observations were also held in Hindu School, Aryakanya Mohavidyalaya and Victoria high school under the initiative of “Young scientist forum” affiliated to BSS and in two main spots of Kolkata - College street and Hazra More.



**National Science Day March at Rajabazar Science College (Calcutta University)**



**Prof Amitava Datta (President of BSS WB) speaking at the end of the march**



**East Medinipur:** The day was observed in Panskura Banamali college, Panskura High School, Tamralipta, Mahavidyalaya, Jukhiya K N Banimandir, Mugberia Gangadhar college, Haldia Dalimbachak Technical High School, Punarbasan High School, Egra college, Bajkul college, Panskura Science Centre, P C Roy science society and Ramnagar science society.



In Panskura Banamali college, quotation and poster exhibition, book stall and badge wearing were organised.



In Panskura Girls High School, anti- superstition program and slide show were organised by the members of Panskura Science Centre. Rivu Maji and Chandan Das Adhikary are seen conducting the demonstrations.



National science day observed in Madhuri Kalyanika Vidyabhan, Tamluk



National Science Day observed by BSS, Mugberia Chapter at Jukhiya K N Banimondir. Science Model Exhibition was inaugurated by the Head Master Mr Kishor Kumar Das.



In Haldia Dalimbachak Technical High School, Poranchak High School and Punarbasan High School, badge wearing programs were organised.

**Jalpaiguri:** National Science Day was observed in Central Girls High School, Fanindradeb Vidyalaya, Ananda Chandra college under the initiative of 'Light of Science' affiliated to BSS. A seminar was organized in Netaji Subhash foundation hall on the topic 'Evolution of scientific thought in the present context'. Dr Apurbalal Senapati was the speaker.

**Darjeeling:** The day was observed by Marie Curie science club. A seminar was organised in North Bengal University on the topic 'Corona virus' and 'History of Science in India'

**South 24 Parganas:** Science day programs were organised in Dimond harbour High School, Kakdip Sundarban Adarsha Vidyalaya, Dharapara High School, Ghoradol High School and Krishna Nagar High School. A discussion was held in Radhakantapur in the presence of Shri Kingsuk Halder of BSS.

**Paschim Bardhaman :** The day was observed in Hirapur Manikchand Higher Secondary School, Eastern Rail High School and Assansole Girl's college under the initiative of S N Bose science club.

**Purulia:** National Science Day was observed in 27 schools. Also observational programs were held in Sidho Kanho Birsha University and Raghunathpur college.