



2021-22



ANNUAL REPORT & AUDITED STATEMENT OF ACCOUNTS



National Institute of Science Education and Research



OUTREACH ACTIVITIES

NISER is mindful of its social responsibilities and has been reaching out to students and teachers to motivate them in their scientific pursuit. Spearheaded by Dr. Debasmita P. Alone, the activities are coordinated and spread round the year in three categories: NISER Open Day, Teacher Training Workshops and Educational Visits of schools.

Secondly, NISER along with the Institute of Physics is executing the Vigyan Pratibha Project of the Department of Atomic Energy to train teachers by conducting various teacher-training workshops in the Odisha and Chhattisgarh region. Vigyan Pratibha is a novel initiative of Government of India under the aegis of Department of Atomic Energy for extended nurture of talent in Science and Mathematics among school students of Class 8th to 10th in Kendriya Vidyalaya, Jawahar Navodaya Vidyalaya, and Atomic Energy Central schools across the country. The core of the project will be in the form of learning units that are an extension to the topics taught in classrooms which can deliver practical knowledge and instill the basic concepts through "Learning by Doing" in the students. The key aspect of this program is that science circles in schools, in which students will conduct Learning Units developed as a part of the program at Homi Bhabha Centre for Science Education (HBCSE) with the help of faculties all over the country. It also has an exposure dimension as a part of which the students and teachers will get to see high-end scientific research facilities by visits to national scientific institutions. This year they have conducted two workshops for training teachers of various

learning units for the teachers who in turn have been able to conduct the learning units in their respective schools involving students and the reviews have been very satisfactory.

There are year-round visits of students and faculty from various institutions who get first-hand experience of an elite Scientific Institution. The Scientific Officers at various schools have been carrying out the responsibility of these activities. Students and teachers from all around the country, nearby, far and remote areas, have been encouraged to participate in these visits. They are escorted through various research facilities of all the departments for a better understanding of the academic learning at an educational institution such as NISER. These kind of educational trips provide the students to learn through a genuine experience to gather knowledge and perspective into the possible career paths in the scientific community. They help in breaking the stereotypes related to academics and provide insight as to why Science and Mathematics is highly important for the society, and also why it can be interesting as well. When school students observe the work-life of people at NISER and interact with them, it leads to better achievement, standards, motivation, personal development and behaviour in them. These visits also help to enhance the social, personal and emotional development of all participants. They are left with a sense of imagination and a new found interest for science.

The main Outreach activity was undertaken by NISER during 2021-22 is as follows:

Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Sl. No.	Title of the Activities	Organising unit/ agency/ collaborating agency	Number of Teachers coordinated in such activities	Number of students participated in such activities
1	NISER Open Day	NISER Outreach Cell	Three Dr. Subhankar Bedanta, School of Physical Sciences and Dr. Anniruddha Dutta Roy, School of Biological Sciences, NISER. This event was managed by Dr. Debasmita P. Alone, Chairperson, Outreach Committee, NISER and student volunteers from the Science Activities Club, NISER	Open to Students of classes IX to XII, first-year college students
2	School and College student activities: Astroquiz, Logo making, Elucidate and Astro-treasure hunt	Astronomy Club, NISER	Five This event was managed by student volunteers from the Astronomy Club & Dr. Debasmita P. Alone, Chairperson, Outreach Cell, NISER. The Judges for various events were Dr. Subhankar Mishra, SCoS, Dr. Liton Majumdar, SEPS, Dr. Subhasish Basak, SPS and Dr. Tuhin Ghosh, SPS.	Students of classes IX to XII and first-year college students participated by VC
3	Inventa Science Magazine	Science Activities Club, NISER	Two This event was managed by student volunteers from the Inventa Science Magazine team, NISER and Dr. U. Louderaj, SCS.	An online magazine freely accessible to students and general public.
4	Talk- Drawing Science	Science Activities Club, NISER	One Dr. Ipsa Jain, Science Communicator. This event was managed by student volunteers from the Science Activities Club, NISER	Open to all NISER students, Faculty members, and Staff, and their family members
5	Talk on COVID-19 vaccines	Science Activities Club, NISER	One Dr. Jithesh, a leading epidemiologist and a senior member in the Kerala Government's health services, serving as the Superintendent at Taluk Hospital, Areekode. This event was managed by student volunteers from the Science Activities Club, NISER	Open to all NISER students, Faculty members, and Staff, and their family members



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6	Talk on If Schools Could Move: Education in Exceptional Times	Science Activities Club, NISER	One Dr. Shivali Tukdeo of National Institute of Advanced Studies (NIAS). This event was managed by student volunteers from the Science Activities Club, NISER	Students, faculty members and the general public participated through VC.
7	Talk on Vaccine and its Science	Pratham, Non Government Organization and NISER Outreach Cell	Two Prof. Rabindranath Nayak, Retired Professor, IISc Bangalore and a renowned Vaccine reseracher of India who has been at the core of many innovations in the areas of vaccine design. This program was managed by Dr. Debasmita P. Alone, Chairperson, Outreach Committee, NISER and along with Pratham, an NGO	Open to all NISER students, Faculty members, and Staff, and their family members and general public
8	Science Communication: Dissiminating Or Gatekeeping Science?	Science Activities Club, NISER	One Dr Satyajit Rath, Adjunct Faculty, IISER Pune with Sh. Abilash Kumar M, 5th year BS MS student, IISER, Pune. This program was managed by student volunteers from the Science Activities Club, NISER.	Open to all NISER students, Faculty members, and Staff, and their family members
9	The Art of Speculation	Science Activities Club, NISER	One Dr. Anil Menon This program was managed by Dr. Debasmita P. Alone, Chairperson, Outreach Committee, NISER along with student volunteers from the Science Activities Club, NISER.	Open to all NISER students, Faculty members, and Staff, and their family members
10	Outreach Talk - Learning through Play with NASA-LEGO Apollo toys: One Small Step for Man, One Giant Leap for Mankind	NISER Outreach Cell	Three Dr. Guneshwar Thangjam The event was managed by Dr. Ajay K. Dash, Outreach Committee member, SEPS, Dr. Debasmita P. Alone, Chairperson, Outreach Cell, NISER and student volunteers from the Science Activities Club, NISER	Students of classes IX to XII, first-year college students, and the general public participated through VC
11	Outreach Talk - SPECULATIVE FICTION:A Flight of Fancy or Holding a Mirror to society?	NISER Outreach Cell	Two Dr. Amarjeet Nayak The event was managed by Dr. Debasmita P. Alone, Chairperson, Outreach Cell, NISER and student volunteers from the Science Activities Club, NISER	Students of classes IX to XII, first-year college students, and the general public participated through VC.



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12	'What after MS? - Deep Dive in Management'	Science Activities Club, NISER	One Mr. Aditya Kulkarni (BS-MS Chemistry 2020 Graduate from IISER). This program was managed by student volunteers from the Science Activities Club, NISER.	Open to all NISER students, Faculty members, and Staff, and their family members
13	Outreach Talk - PLATONIC SOLIDS	NISER Outreach Cell	Three Dr. Chitrabhanu Chaudhury The event was managed Dr. Anupam Pal Chowdary, Outreach Committee member, SMS and Dr. Debasmita P. Alone, Chairperson, Outreach Committee, NISER and student volunteers from the Science Activities Club, NISER	Students of classes IX to XII, first-year college students, and the general public participated through VC.
14	Outreach Talk - Developmental Biology - An Ever Developing Field	Science Activities Club, NISER	One Dr. Ramkumar Sambasivan, IISER, Tirupati This program was managed by student volunteers from the Science Activities Club, NISER.	Open to all NISER students, Faculty members, and Staff, and their family members
15	Outreach Talk - Ion channels in health and disease: Nobel prize 2021 and future research	NISER Outreach Cell	Two Dr. Chandan Goswami The event was managed by Dr. Debasmita P. Alone, Chairperson, Outreach Cell, NISER and student volunteers from the Science Activities Club, NISER	Students of classes IX to XII, first-year college students, and the general public participated through VC.
16	Panel Discussion - Into the Future of Indian Science	Science Activities Club, NISER	Four Gagandeep Kang, Sylvia Karpagam, Rafeeqe Mavoor, Sonajharia Minz. This program was managed by student volunteer from the Science Activities Club, NISER.	Open to all NISER students, Faculty members, and Staff, and their family members