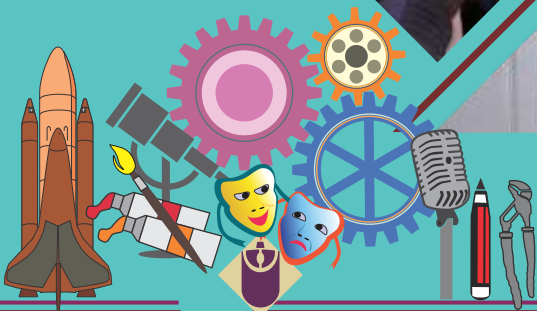


Vigyan Srijan Tsav

4-6 December 2019

A REPORT





राष्ट्रीय विज्ञान केन्द्र

(राष्ट्रीय विज्ञान संग्रहालय परिषद्), संस्कृति मंत्रालय, भारत सरकार
गेट नं. 2 के समीप, प्रगति मैदान, बैरोन मार्ग, नई दिल्ली - 110 001

NATIONAL SCIENCE CENTRE

(National Council of Science Museums), Ministry of Culture, Govt. of India
Near Gate No. 2, Pragati Maidan, Bhairon Road, New Delhi - 110 001



Message

Innovation and creativity are the key ingredients of any society for it to progress and achieve epitome of success, especially in the current world scenario. It can happen anywhere if the young and/or fertile minds are provided with a conducive and encouraging platform. Vigyan Srijanotsav is one such attempt by the National Science Centre, Delhi to provide a platform for the students and general public to create and innovate in whatever field they have interest.

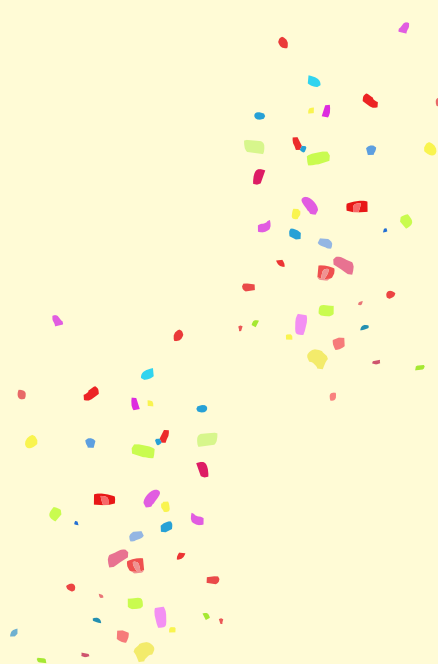
Various programs such as science seminar and science drama contests, science fair and innovation fair were organized separately during earlier years. This had a constraint of providing cross connections to the students to acquire skills in other fields/activities with varied exposure. This shortfall is now overcome by organizing the Vigyan Srijanotsav – a multi-faceted single venue mega festival-like event focusing on the STEAM (Science, Technology, Engineering, Art and Mathematics) principles.

With 15 number science and technology based activities/ programs/ contests/ quizzes/ expositions organized over a period of 3 days at 12 venues within the National Science Centre, Delhi campus, the event has provided science festivity and feast for not only young students but also for the general visitors (including family groups) to the Centre.

A report on this program has been brought out to provide a detailed information and success stories of this program. I am sure that in the coming years, the program will be more engaging for one and all and help in creating an innovative society.


(D. Rama Sarma)
Director

Vigyan Srijan Tsav





Executive Summary

'Vigyan Srijanotsav' was inaugurated by Prof. K. Vijay Raghavan, Principal Scientific Adviser, Government of India on 4th December 2019. The Guest of Honour on the occasion was Dr. D. K. Aswal, Director, CSIR-National Physical Laboratory, New Delhi. **Vigyan Srijanotsav-Northern India Science Fair** in collaboration with SCERT/SIE of northern states and Jawahar Navodaya Vidyalaya Samiti was organized during the period. 17 Team and 30 individual projects were displayed in Northern India Science Fair. **Vigyan Srijanotsav-Northern India Science Drama** was organized on 4th & 5th December 2019. Two winner students' teams from each northern states/UT performed science drama on one of the sub-themes. An interactive workshop on theatre and script writing was organized for invited student teams and accompanying teachers. The Centre organized Northern India Science Drama in collaboration with SCERT and SIE of northern states. The **Vigyan Srijanotsav-Innovation Fair** was organized in which 28 Innovators

including private companies participated and presented their projects. A workshop on Intellectual property Right and Artificial Intelligence was also organised. A lecture on 'Global Warming: Science, Ethics and Sustainability' by Prof. Avinash C Pandey, Director, Inter University Accelerator Centre, New Delhi was delivered. In 'Make it at Science Centre' event participants made innovative models from scrap. 10 teams participated in 'Innovative Challenge' contest to make beam using chart paper for bearing load. In addition Nukkad Natak, Science Quiz, Workshop of adulteration of Food and First Aid Camp was organized during this period. Prof. H.P. Singh, Director, Cluster Innovation Centre, University of Delhi was the Chief Guest on 6th December 2019 in valediction and prize distribution function. The winners received the prizes and certificates during valedictory function from the invited chief guest. About 12000 people including the students/teachers attended the programmes during this period.



Inauguration

December 4-6, 2019





'Vigyan Srijanotsav' A Confluence of Science, Art & Creativity was inaugurated by Prof. K VijayRaghavan, Principal Scientific Adviser, Govt of India in the august presence of Dr A S Aswal, Director, CSIR-National Physical Laboratory, Delhi and Shri A D Choudhry, Director General, NCSM, Kolkata on 4th Dec. 2019.



Northern India Science Fair



Glimpses

Northern India Science Fair





INTRODUCTION

Almost all countries organise, in some form or other, science fairs to stimulate young minds to take active interest in science, engineering and mathematics and to provide a platform to these youngsters to nurture their creativity. The fairs further aim to provide an educational experience by exposing them to the judges and the public to give confidence and public recognition for their work. Every year over 2 millions students in India alone participate in these fairs at different levels.

NORTHERN INDIA SCIENCE FAIR 2019 –2020

As a leader in science communication, NSCD is committed to the promotion of interest in science and technology education among students across the northern India. Northern India Science Fair has now being presented as a part of Vigyaan Srijanotsav. There were 31 Individual Projects and 16 Team Projects as a part of NISF .

OBJECTIVES OF NISF

Research is process by which people create new knowledge about themselves or the world around them in order to answer a question or solve a problem. While choosing the problem, one needs to carefully think as to how the research might enhance the knowledge and quality of lives of people. Similarly engineering feats try to create things, which never existed before to help mankind based on knowledge acquired. NISF aims at bringing this aspect of thinking, problem solving and researching attitudes in young minds. . The main objective of the NISF is to infuse the spirit of discovery among students, by stimulating young minds to take an active interest in science & technology.

The student projects are excellent examples of 'inquiry' based learning which employs hands on approach to teaching science: students learn through research and experimentation, not just through lectures and books. It also tries to bring together young scientists from different parts of country to compete, get prizes/awards, establish new collaborations for future research, exchange thoughts with students from other cultures and make new friends.



Awards Northern India Science Fair 2019-20

S.N	Prize	Category of the Project	Name of the School	Name of the Participant (1)
1	First	Individual	Trinity Public School, Banjar Distt Kullu,H.P.	Rohit Shrama
2	Second	Individual	Gyan Bharti School Saket, New Delhi	Hardik Chhabra
3	Third	Individual	Vidyagyan School Sitapur Road Lucknow, UP	Rajat singh
4	Fourth	Individual	GSSS Khandalwa, PO Matour, Dist Kaithal, Haryana	Vikaram
5	First	Team	St. Xavier's High School, Machrauli Mode, Gt Road Samalkha Panipat HR	Shaugun Ruhai
6	Second	Team	Maharaja Agarsain Public School, Ashok Vihar Phase-4 Delhi 52	Bhavay Garg
7	Third	Team	Vidyagyan School, Sitapur Road, Lucknow, UP	Sakash kumar gupta
8	Fourth	Team	St. Joseph School Sector 44, Chandigarh	Manmeet Rahi

Northern India Science Drama



The Centre organises Northern India Science Drama Contest in collaboration with state/UT educational authorities. Each year the main theme of the contest is “Science and Society” with five sub-themes. At the initial stages, the contest is organised by the state/UT educational authorities at the Block, District and State levels. Two teams from each state/UT are selected for the Northern India Science Drama Contest. In all 16 teams (each team comprising of 9 participants) from the 8 state/UT of northern India participated. Two winner teams of the Northern India Science Drama are invited to finally participate at the National Science Drama Festival, organised at one of the Centre located at Mumbai, Kolkata, Bangaluru, Delhi and Guwahati.

Northern India Science Drama contest was organised at National Science Centre, Delhi on 4th & 5th December 2019 during Vigyan Srijanotsav 2019. The main theme for this science drama was 'Science and Society' and the all the teams performed their science drama on one of the sub-themes –

1. Gandhi & Science
2. Cleanliness, Health & hygiene
3. Periodic Table
4. Green & Clean Energy.

Teams invited at NISDC 2019

Sr	No State /UT	No of Teams	No of Participants
1	Delhi	2	18
2	Haryana	2	18
3	Himachal Pradesh	2	18
4	Uttrakhand	2	18
5	Utter Pradesh	2	18

Teams Participated at NISDC 2019

1. Shri Ayodhya Singh Memorial Inter College, Lucknow, Uttar Pradesh
2. D.P.S Academy, Itaunja, Lucknow, Uttar Pradesh
3. Himalayan Public Sr. Sec. School, Chamba, Himachal Pradesh
4. The Scholars Home Poanta Sahib, Himachal Pradesh
5. O.S.D.A.V. Public School Kaithal, Haryana
6. Zee Litera Valley School (Sr. Sec.), Bhiwani, Haryana
7. Little Flower Public School, Yamuna Vihar, Delhi
8. M.L. Khanna D.A.V. Public School, Dwarla., Delhi
9. Govt. Intermediate College Uttarkashi, Uttrakhand
10. Govt. Inter College Kankhul, Chamoli, Uttrakhand

Panel of Judges of the Northern India Science Drama Contest

1. Mr. Hassan Javed Khan, Chief Editor, CSIR-NISCAIR, Delhi
2. Dr. Geeta Sharma, Associate Professor, Shyama Prasad Mukherji College, University of Delhi
3. Mr. Hafeez Khan, Member, Theatre In Education Company a Unit of National School of Drama, Delhi
4. Shri Ajit Chowdhury, Actor & Director (Drama), Sparsh Natya Rang, New Delhi.

Result of the Northern India Science Drama Contest

1. Best Drama: Zee Litera Valley School (Sr. Sec.), Bhiwani Haryana
2. Runner Up: Little Flower Public School, Yamuna Vihar, Delhi
3. Best Actor: Irfan, Himalayan Public School, Chamba, HP
4. Best Actress: Anshika Negi, The Scholar Home Public School, Ponta Sahib, HP
5. Best Director: Pawan Kumar, Zee Litera Valley School (Sr. Sec.), Bhiwani, Haryana
6. Best Script Writer: Rajesh Joshi, Govt. Inter College, Uttarkashi, UK

JUDGE'S



Synopsis of Drama

मृत्योर्मा अमृतम् गमय (आओ चलें आरोग्य की ओर)

It is a short and sensitive drama which is set around a big land - fill which has turned into an enormous mountain of mixed garbage near a small village. Because of this, many diseases are spreading in the village including AIDS as many hospitals of the city dump their untreated and infected refuse at this place only. With the passage of time, small flames of fire break out on the top of this mountain due to the release of methane gas from the decomposed trash. This phenomenon is observed by the much tormented and frustrated eunuch living in the village. He conspires and projects a rogue as Pahadi Baba, the incarnation of Goddess Jwala (the Flame Goddess). And then, the stream of superstition engulfs the villagers and these "Goddess' men" exploit and drive the foolish villagers in their own way. In the meantime, a village youth, who was expelled from the village, develops a machine for making electricity from mixed trash taking inspiration from human digestive system. As the human digestive

system digests and separates different nutrients at different levels, in the same manner, Indian garbage, which is sadly a mixture of both bio degradable and non-biodegradable trash, can be treated with this special machine which first separates metallic parts from the trash with the help of magnetic separators; then polythene and plastic are separated and afterwards methane gas comes out from bio degradable substances. This process is termed as Bio-methanation Technology in which methane gas thus produced is utilized to move turbines to produce eco-friendly electricity. Its byproducts - organic compost can be sold to the farmers and plastics can be used for paving the roads. The message is simple and clear: we can create a blissful, clean and disease free heaven for us if we could know the simple art of disposing and utilizing our waste properly. May sanity prevail on Homo sapiens so as to save and safeguard the future of their species!!!

CHOICES



2nd

Synopsis of Drama

यमराज की अदालत

This is a Science Drama based on the theme –"Cleanliness, health and hygiene" having mythological characters as center of attraction, Yumraj and his buffalo. Yumraj and his buffalo converse about the reason of increasing death rate. This comedy drama also shows very interesting characters of a quack doctor, a man defecating in open, an engineer and problem caused by deforestation.

We tried to show the plight of sewer workers, sweepers, depleting green cover, uncivilised manners of common people in a very interesting and sarcastic way. We have interesting songs too which fill the play with melody and also give the special messages.

The play tries to connect each problem with its solution through scientific approach.



Innovation fair



Innovation fair



The Innovation Fair displays innovative & creative works of grassroots innovators from various section of the society and student innovators. These innovators and innovations have been identified after a long process of review. It is praiseworthy to note that many of the innovators do not have even formal technical education or resources and they are from aspirational and developing regions of the country. What is needed is effective scouting, rewarding, empowering and providing right linkages, information and opportunities to innovative people.

Thus the Innovation fair provides a platform for Innovators to show their creative work by undertaking many activities aimed at enriching the innovation ecosystem of the country.

The Innovation Fair comprises of-

1. New innovative products made by Individual/ Students/R&D or Start-up companies in the past.
2. On-going new projects and its demonstration
3. Giving opportunity for visitor's participation in New project.

Innovation Fair



A Popular Science Lecture on the topic “Global Warming: Science, Ethics and Sustainability” by Prof. Avinash C Pandey, Director, Inter University Accelerator Centre, New Delhi and Ex-Vice Chancellor, Bundelkhand University, Jhansi was organized during Vigyan Srijanotsav 2019. Prof.Pandey highlighted how the increase in carbon footprint affecting the climate throughout the Earth. Nearly 250 visitors attended this lecture.

A family Innovative Challenges contest was held in which creative task were assigned to families and the best three entries are awarded. The Families were given the task such as to make a paper beam of fixed size and test its strength by putting load and similarly another task was to make a rally of fixed no. of Domino for maximum time. Total 10 teams each of 4 members participated in this contest.



A team of Doctors and para- medical staff from BLKapoor Superspecialty Hospital, Delhi organised interactive workshop on “First Aid” and also conducted “Health Camp” for participants of Vigyan Srijanotsav, staff of NSC Delhi. Basic routine health check-up were conducted for visitors also. In this workshop about 400 students and teachers were trained to impart Cardio-Pulmonary Resuscitation (CPR) techniques in edition to basic first aid procedures.

The Science Quizzes were held separately on the topics namely: Physics, Chemistry, Biology, Mathematics and astronomy all the Quizzes were organised in written rounds followed by a stage rounds. The Quizzes were open for the students as well as for general public and about 120 people participated in this quizzes. About 500 visitors were present during these quizzes.



Activities.....

A workshop on Intellectual Property Rights was organized in collaboration with M/S S. S. Rana and Co. in which the participants were briefed about the importance of Patents and how and where they can file them. The Participants enthusiastically interacted with the resource persons. Total 60 person attended this workshop. A kiosk on IPR was also setup in Innovation fair for the benefit of participants.



During the utsav 'A Make it at Science Centre' event was organized in which participants can make things from available waste. In first two days the participants build their creations and they displayed them on the last day of the fair. The participants made lots of decorative items, Photo frame, Sculpture, Wind chime, Puppets etc. Total 7 participation were there in this contest.

First time three days' workshop on Artificial Intelligence was organized in collaboration with Learning Link Foundation. In this workshop students were introduced to Artificial Intelligence and machine learning. Hands on experience of Creating models, making of Chat bot, opening IBM clouds account and testing etc. were given to participants. Total 48 students participated in this workshop.



Participating teams of Northern India Science Drama Contest also performed their plays for the general public in the campus of the Centre. The plays were on various topics related to cleanliness, health & hygiene, famous Indian scientist etc. Total 10 plays were performed. Visitors enjoyed the plays.

Valediction.....





Awards....

S.No	Prize	Event	Category of the project	Name of school	Name of participants
1	First	Innovation Fair	Group	DL DAV Model School	Yajur Rai Chhabra Harsh Sharma Anamika Sharma
2	Second	Innovation Fair	Group	Deep Inter College Mendu Hathras	Harsh Kumar
3	Third	Innovation Fair	Group	Mamta Modern Sr. Sec.School	Saksham Anand Mayank Kataria Anirudh Rawal
4	First	Innovation Fair	Individual	Hansraj Model School	Avirath Magoo
5	Second	Innovation Fair	Individual	N/A	Vaibhav yadav
6	Third	Innovation Fair	Individual	N/A	Ronan Madan
7	First	Innovation Fair	Company	Melody's Hobby Centre	Manoj Kumar Magoo
8	Second	Innovation Fair	Company	Entecres labs Pvt. Ltd.	Ravi Jha, Shani Kumar Singh Bhargav Reddy
9	Third	Innovation Fair	Company	Goel innovatives	Col(retired) Alok Goel
10	First	Make it at Science Centre	Individual	N/A	Sunita Devi
11	Second	Make it at Science Centre	Individual	N/A	Divya Jain
12	Third	Make it at Science Centre	Individual	N/A	Julita
13	First	Family Innovative Challenge	Family	N/A	Amit Bhansali & family
14	Second	Family Innovative Challenge	Family	N/A	Pragya Gupta & family
15	Third	Family Innovative Challenge	Family	N/A	Ram Naresh Yadav & family

Innovation Fair

S.No	Prize	Event	Category of the project	Name of school	Name of participants
16	First	Make it at Science Centre	Individual	ASN Sr. Sec. School	Saransh Chopra
17	Second	Science Quiz (Physics)	Individual	Modern Delhi Public School	Pragya Gupta
18	Third	Science Quiz (Physics)	Individual	Adarsh Public School	Ritwik Mittal
19	First	Mathematical Quiz	Individual	K.R. Mangalam World School	Rohan Goyal
20	Second	Mathematical Quiz	Individual	Delhi Public School Greater Noida	Aayush Bhansali
21	Third	Mathematical Quiz	Individual	Modern Delhi Public School	Pragya Gupta
22	First	Science Quiz (Chemistry)	Individual	Modern Delhi Public School	Pragya Gupta
23	Second	Science Quiz (Chemistry)	Individual	Abhinav Global School	MehndirattaNikhil
24	Third	Science Quiz (Chemistry)	Individual	Aadharshila Vidyapeeth	Saksham Bisht
25	First	Science Quiz (Astronomy)	Individual	ASN Sr. Sec. School	Tatineni jayant
26	Second	Science Quiz (Astronomy)	Individual	Sri Ram School Gurgoan	Sparsh Vashist
27	Third	Science Quiz (Astronomy)	Individual	Delhi Public School Greater Noida	Aayush Bhansali
28	First	Science Quiz (Biology)	Individual	Amity international School	Manas Kumar
29	Second	Science Quiz (Biology)	Individual	Abhinav Global School	Pradeep
30	Third	Science Quiz (Biology)	Individual	Abhinav Global School	Diksha Narain



Vigyan
Srijanotsav

PUBLICITY





Certificate & Badges



NAME _____

EVENT _____



Organised by
National Science Centre
(National Council of Science Museums)
Ministry of Culture, Govt. of India



Certificate

This is to certify that

of

has participated in the

during

Vigyan Srijanotsav held at National Science Centre, Delhi

from 04th to 06th December 2019

and was awarded

prize in the order of merit.

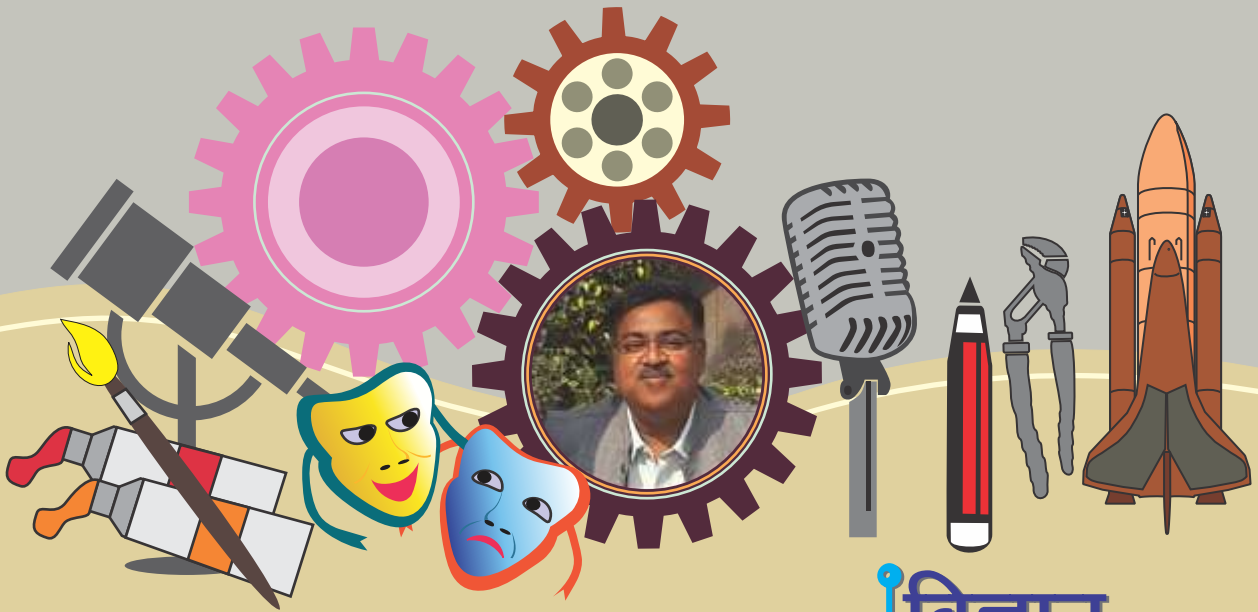
Date: 06 December 2019

D. Rama Sarma
Director, NSC Delhi



Organised by
National Science Centre
National Council of Science Museums
Ministry of Culture, Govt. of India
Near Gate No. -1, Pragati Maidan
New Delhi-110001

The SELFY POINT



राष्ट्रीय विज्ञान केन्द्र, दिल्ली
(राष्ट्रीय विज्ञान संग्रहालय परिषद्)
संस्कृति मंत्रालय, भारत सरकार

विज्ञान
सृजनोत्सव

4-6 दिसम्बर 2019

विज्ञान | कला | सृजनात्मकता का समागम

Invitation

I N V I T A T I O N

विज्ञान सृजनोत्सव 4-6 दिसंबर 2019

Vigyan Srijanotsav December 4-6, 2019

विज्ञान, कला तथा सृजनात्मकता का समागम
के अवसर पर
राष्ट्रीय विज्ञान केन्द्र, दिल्ली
(राष्ट्रीय विज्ञान संग्रहालय परिषद्)
आपको सादर आमन्त्रित करता है।

A Confluence of Science, Art & Creativity
on this Occasion

NATIONAL SCIENCE CENTRE
(National Council of Science Museums)
cordially invites you

उद्घाटन

बुधवार, 4 दिसंबर 2019 को प्रातः 11:30 बजे
प्रो. के. विजयराघवन
प्रधान वैज्ञानिक सलाहकार भारत सरकार
द्वारा किया जाएगा

डॉ. डी. के. असवाल
निदेशक, सीएसआईआर- राष्ट्रीय भौतिक प्रयोगशाला, नई दिल्ली
विशिष्ट अतिथि के रूप में उपस्थित रहेंगे।

INAUGURATION

Wednesday, December 4, 2019 at 11:30 am

Prof. K. VijayRaghvan
Principal Scientific Adviser to the Govt. of India
has kindly consented to inaugurate

Dr. D. K. Aswal
Director, CSIR-National Physical Laboratory, New Delhi
will be the Guest of Honour

समापन समारोह व पुरस्कार वितरण

शुक्रवार, 6 दिसंबर 2019 को दोपहर 3:30 बजे
प्रो. कृष्ण लाल
पूर्व अध्यक्ष, भारतीय राष्ट्रीय विज्ञान अकादमी, नई दिल्ली
मुख्य अतिथि रहेंगे तथा पुरस्कार वितरण करेंगे।

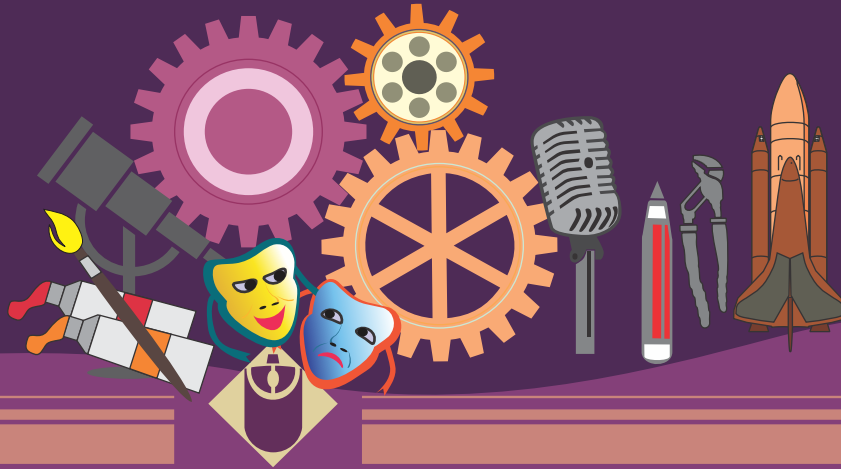
प्रो. एच. पी. सिंह
निदेशक, क्लस्टर इनोवेशन सेंटर, दिल्ली विश्वविद्यालय, दिल्ली
विशिष्ट अतिथि के रूप में उपस्थित रहेंगे।

Valedictory Function & Prize Distribution

Friday, December 6, 2019 at 03:30 pm

Prof. Krishan Lal
Former President
Indian National Science Academy, New Delhi
has kindly consented to be the Chief Guest
and will award prizes

Prof. H.P.Singh
Director, Cluster Innovation Centre, University of Delhi,
will be the Guest of Honour



Organised by

राष्ट्रीय विज्ञान केन्द्र
National Science Centre

(National Council of Science Museums), Ministry of Culture, Govt of India
Near Gate No.-1, Pragati Maidan, New Delhi-1, Phone. 23371945, 23371893, Fax: 23371263
E-mail: educationnscdelhi@gmail.com, nscdl01@gmail.com, Website: www.nscd.gov.in



Vigyan Srijan Tsav

December 4-6, 2019



Events during Festival

- Innovation Fair
- Make it in Science Centre
(Build form Scrap)
- Idea Contest
- Popular Science Lecture
- Family Innovative Challenges
- Workshop on Artificial Intelligence
- Science Quiz on hourly basis

Special Attractions

- Northern India Science Drama Contest
- Northern India Science Fair

For details Visit our website www.nscd.gov.in
or email to innovationnscd@gmail.com



National Science Centre, Delhi
National Council of Science Museums
Ministry of culture, Govt. of India



National Science Centre

National Council of Science Museums, Ministry of Culture, Govt of India

Near Gate No.-1, Pragati Maidan, New Delhi-1

Phone. 07428693710-17, Fax: 23371263,

E-mail: educationnscdelhi@gmail.com, nscdl01@gmail.com

Website: www.nscd.gov.in, Twitter: [@ScienceDelhi](https://twitter.com/ScienceDelhi), Facebook: [nsc.delhi](https://www.facebook.com/nsc.delhi)