



Inspire Internship Programme 2017
Innovation in Science Pursuit for Inspired Research
An initiative of DST, Government of India



18-22 December 2017

Organized by
 D S Kothari Centre for Research and Innovation in Science Education
 Miranda House, University of Delhi



Department of Science and Technology
 Ministry of Science and Technology
 Government of India



D S Kothari Centre for Research and Innovation
 in Science Education, Miranda House



Miranda House

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Internship Programme: Monday, 18 December to Friday, 22 December 2017

About the DST INSPIRE Scheme: Innovation in Science Pursuit for Inspired Research (INSPIRE) is an innovative programme sponsored and managed by the Department of Science & Technology for attraction of talent to science. The basic objective of INSPIRE is to communicate to the youth of the country the excitements of creative pursuit of science, attract talent to the study of science at an early stage and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base. A striking feature of the programme is that it does not believe in conducting competitive exams for identification of talent at any level. It believes in and relies on the efficacy of the existing educational structure for identification of talent.

About the INSPIRE Internship Programme: One of the component of the Scheme for Early Attraction of Talent for Science (SEATS) is INSPIRE Internship in which annually about 50,000 students of top 1% performers in Class X board examinations and pursuing science at plus 2 will be given an exposure with leaders in science in the summer/ winter camps to experience the joy of innovations.

About INSPIRE Award: In order to see and experience the joy of innovation, every year two lakh school children in the age-group of 10 to 15 years i.e., 6th to 10th standards are being identified for the INSPIRE Award. Each INSPIRE Award envisions an investment of Rs. 5,000 per child. The scheme plans to reach at least two students per secondary school during the next five years.

About INSPIRE Eligibility Criteria: Top 1% of students in their X Board Examination and pursuing science in Higher Secondary School Education, i.e. XI and XII standard are eligible to participate in this programme. In case the number of students within 1% of respective State Education Board is more than the allocated number for that state, top rankers will be selected for INSPIRE Internship. In the year 2015 students with CGPA A1 in CBSE examination and 95% aggregate in ICSE board examination are eligible for participating in INSPIRE Internship. **In this academic year, the top 1% cut off marks in Class X for CBSE Board is 99.6% (CGPA-A1) and for ICSE Board is 95.0%.** Details about INSPIRE scheme can be found at <http://www.inspire-dst.gov.in/>



INSPIRE Internship Camps at Miranda House

Miranda House has been organizing INSPIRE Internships Camps since 2010. The Mentorship Programme has been specially designed to motivate young students. Each year the programme includes motivational overview talks by renowned scientists, demonstration talks by practicing science educators and those engaged in outreach such as the National Science Centre. The exciting hands-on workshops have been specially designed by the D S Kothari Centre for Research and Innovation in Science Education and the faculty at Miranda House.

A brief summary of them is given below:

INSPIRE 2010:

Dates	15 – 20 July 2010
Funding by DST	Rs. 10.4 Lakh
Participant Profile:	
Number of Participating Schools	35
Number of Participating Students	194
Number of Participating Teachers	74

INSPIRE Motivational Talks in 2010: The Programme included motivational overview talks by renowned scientists, among them, Dr. T Ramasami, Secretary, Department of Science and Technology; Dr. Sameer Bhramachari, Director General, CSIR; Dr. N Rathnasree, Director Nehru Planetarium; Dr. Anuj Sinha, Director, Vigyan Parasar; Prof. Narendra Nayak, National President, Federation of Indian Rationalists Association; Prof. S K Tandon and Prof. Dinesh Singh, Delhi University; Dr. Neel Sarovar Bhavesh, ICGEB; Dr. Lakshmikummar, NPL; Dr. Narayan Iyer, Science Society Bangalore; Dr. Lalit Das and Vijayaraghavan Chariar, IIT Delhi; Dr. S V Eswaran, St. Stephens College; Dr. G S Sodhi, Khalsa College; and Mr. Jitin Chawla, Centre for Career Development. Demonstration talks by practicing science educators and those engaged in outreach such as the National Science Centre added to the excitement. A special session was devoted to Creativity and Innovation. The student winner of INTEL's International Science Talent Discovery Fare (STDF), Debarghya Sarkar, was specially invited from Kolkata to share his experiences and details of his prize winning project and journey through innovations.

INSPIRE 2011:

Dates	11-15 July 2011
Funding by DST	Rs. 13.27 Lakh
Participant Profile:	
Number of Participating Schools	29
Number of Participating Students	211
Number of Participating Teachers	18

INSPIRE Motivational Talks in 2011: Based on the success of the earlier programme, several renowned scientists were invited. They are listed below along with the titles of their talks.

Professor Dinesh Singh, Vice Chancellor, University of Delhi; *Learning to be a Scientist – Some Role Model*

Dr. Bhavik Bakshi, Vice Chancellor, TERI University, *Opportunities for Innovation in Sustainability*

Dr. Rajesh Gokhale, Director, Institute of Genomics and Integrative Biology; *Decoding Biological Systems Diversity and Metabolic Networks*

Dr. M. A. Khalid, Field Director, Earth Watch India, India Regional Climate Centre; *Climate Change: Issues, Science and Solutions*

Dr. Sujata Mohanty, Director, Stem Cell Facility, AIIMS; *Promise of Stem Cells*;

Mr. Prasanto K Roy, President and Chief Editor, ICT Publishing Group, Cyber Media; *Technology for the Future*

Dr. Sangeeta Malhotra and Dr. James Rhoads, School of Earth & Space Exploration, Arizona State University; *Cosmology: Dark Energy, Dark Matter*;

Dr. Aditya Mittal, IIT Delhi; *Dynamics and Self-assembly in Biological Systems*

Dr. Rintu Nath, Vigyan Prasar, *Innovative Experiments in Science*;

Dr. Vijayaraghavan Chariar, IIT Delhi; *Indian Knowledge Traditions - Classical and Folk*

Ms. Malathi Lakshmikumaran, Lakshmikumaran & Sridharan (Legal Firm); *The Power of Intellectual Property*

Dr. S. V. Eswaran, St. Stephens College; *Beyond the Classroom*;

Dr. G. S. Sodhi, S. G. T. B. Khalsa College; *Chemical Detection of Latent Fingerprints*;

Demonstration talks by practicing science educators and those engaged in outreach such as the National Science Centre added to the excitement. The latter presented the intriguing experiments from the *World at Low Temperatures*.

In 2011, the most scintillating part of the Inspire Camp was the visit of Dr. John P. Holdren, Director of the White House Office of Science and Technology Policy, and Co-Chair of the President Obama's Council of Advisors on Science and Technology (PCAST). He was specially invited to the college – at the initiative of the US Embassy, the Indo-US Forum on Science and Technology and the Department of Science and Technology, Govt. of India – to give him a flavor of the Inspire scheme and the expectations of the young science students and also, a first-hand experience of the environment in a premiere science college. After an inspirational Plenary address on science in the US, he interacted over an hour with young students, answering their queries. On this occasion, Dr. T Ramasami, Secretary, Department of Science and Technology delivered a talk titled *Promoting Science Education and Research* while Professor Dinesh Singh, Vice Chancellor, University of Delhi, presided.

INSPIRE 2012:

Dates	16-20 July 2012
Funding by DST	Rs. 11.74 Lakh
Participant Profile:	
Number of Participating Schools	25
Number of Participating Students	197
Number of Participating Teachers	18

INSPIRE Motivational Talks 2012

Dr. T. S. Ramasami, Secretary, Department of Science and Technology, Government of India.

Professor Shubha Tole, Tata Institute of Fundamental Research, Mumbai; *We All Began from an Egg...Ade ka Funda*

Professor Paramjit Khurana, Department of Plant Molecular Biology, South Campus, University of Delhi; *The World of Biotechnology*

Dr. Achana Sharma, Senior Scientist, CERN, Geneva, Switzerland (via video conference) and Dr. Kirti Ranjan, Department of Physics and Astrophysics, University of Delhi; *Understanding the Universe: Search for the God Particle*

Professor S K Tandon, Former Pro Vice Chancellor and Professor Emeritus, Department of Geology, University of Delhi; *Human Transformation of Earth*

Professor K Kannan, University School of Biotechnology, GGS Indraprastha University, Delhi; *Fixed Mindset and Evolving Ideas*

Mr. Dinesh Malik, Education Officer, National Science Centre, Pragati Maidan, New Delhi; *Fascinating Physics: Stage Science Show*

INSPIRE in 2013:

Dates	15-20 December 2013
Funding by DST	Rs. 13 Lakh
Participant Profile:	
Number of Participating Schools	33
Number of Participating Students	222
Number of Participating Teachers	67

The highlight this year was the visit by two Nobel Laureates: Dr. Venki Ramakrishnan, 2009 Nobel Laureate for Chemistry and Sir Paul Maxime Nurse, 2001 Nobel Laureate for Physiology or Medicine. Both spent several hours interacting with the participating students, undergraduate students and faculty.

INSPIRE Motivational Talks 2013

Professor Sir Paul Maxime Nurse Nobel Laureate 2001, Physiology or Medicine; *Controlling the Cell Cycle*

Dr. Venki Ramakrishnan Nobel Laureate 2009, Chemistry; *From a Childhood in India to Seeing the Structure of the Machine that Reads our Genes*

Dr. Sudeshna Mazumdar Leighton, Department of Botany, University of Delhi *Multiple Dimensions of the Biotic Environment of Plants*

Professor Dipankar Bhattacharya Inter-University Consortium for Astrophysics and Astronomy (IUCAA), Pune; *The Big Data in Astronomy: the Citizen Science Initiative*

Dr. Satyajit Rath National Institute of Immunology, New Delhi; *Immune to change: How the past meets the future in our microbial defences*

Professor Sriram Ramaswamy Director, TIFR Centre for Interdisciplinary Sciences, Hyderabad; *Active Matter: Flocks and Swarms from Micrometers to Kilometers*

Mr. Dinesh Malik, Education Officer, National Science Centre, Pragati Maidan, New Delhi

INSPIRE in 2015:

Dates	13 – 17 July 2015
Funding by DST	Rs. 13 Lakh
Participant Profile:	
Number of Participating Schools	35
Number of Participating Students	278
Number of Participating Teachers	70

The highlights of INSPIRE 2015 was the visit and interactive session with Dr. Tessy Thomas. She spoke about her experiences as “Agniputri” (daughter of fire, as she had been christened by Dr. APJ Abdul Kalam), the scientist who was at the forefront of the development work for the Agni missiles. Her presence was especially inspiring for the girl students since she told them that technology was gender-neutral and if their work was good, they would not face any discrimination at the workplace. Abhishek Raju's presentation as one of the pioneers of the private space enterprise in India was also well received by the students, particularly because he was so young and also came from a non-science background. The school and college students present were inspired to know that if one makes up one's mind, anything is possible. Mr. H.M. Chitale, the CEO of Philips Lighting Solutions, inspired everyone in the audience to be good citizens by investing in LED lighting which cuts down electricity bills in the long run and saves on power for the householder as well as the country

INSPIRE Motivational Talks 2015

Mr. Harshvardhan Chitale, CEO, Philips Lighting Solutions South Asia: *Emerging World of Digital Light, Light that is not just for Illumination*

Dr Subash Khushu, Head, Division of Radiological Imaging & Biomedical Engineering, NMR Research Centre, Institute of Nuclear Medicine & Allied Sciences (INMAS): *Medical Imaging : Applications to Neuroscience*

Professor Anurag Sharma, Department of Physics, Indian Institute of Technology, Delhi: *Revolution in Optics*

Professor Kankan Bhattacharyya, Department of Physical Chemistry, Indian Association for Cultivation of Science, Kolkata: *Excitement in Laser Spectroscopy*

Mr. Abhishek Raju, Dhruva Space, India: *Dhruva Space – Story of India's First Private Small Satellite Enterprise*

Dr. Tessy Thomas, Project Director, Agni IV and Agni V Missile, Defence of Research and Development Organization (DRDO): *Science and Technology Growth*

Dr. Subhadra Menon and Mr. Pallava Bagla, Award Winning Science Writers and Communicators, Authors of Reaching for the Stars: India's Journey to MARS and Beyond: *India's Dramatic Journey to Mars – Telling the Story and Spreading the Magic*

Education Outreach Team, National Science Centre, Pragati Maidan, New Delhi: *Fascinating Physics – Stage Science Show*

INSPIRE Internship Camp at Miranda House 18-22 December 2017

Funding by DST	Rs. 13.0 Lakh
Participant Profile:	
Eligibility Criteria	Delhi School Students eligible for INSPIRE Top 1% of Class X Board Examination and pursuing science at Class XI or XII
Number of Participating Schools	21
Number of Participating Students	204
Number of Participating Teachers	56

The INSPIRE Programme was designed to motivate young students and to encourage them to pursue science and research. It included motivational overview talks by renowned scientists, demonstration talks by practicing science educators and those engaged in outreach such as the National Science Centre. In addition, the interns engaged in exciting hands-on workshops which were specially designed by the D S Kothari Centre and faculty at Miranda House.

This year, the INSPIRE Internship Programme also included **Ideas Conclave and Competition**.

- **Ideas Conclave** consisted of a Poster Exhibition titled *One Idea Can Change the World*. All participating schools were required to submit at least one poster based on new and innovative ideas addressing one issue of National Importance on 18 December 2018. The following posters were selected by the judges in the categories Best Scientific Poster and Original Innovative Idea:
 - *Best Scientific Poster:*
First Prize: Kritika Kaur Sodhi, Kshitij Pasricha, Ameet Singh and Varnika Sahi; Delhi Public School, Vasant Kunj.
Second Prize: Mayank Gupta, Yash Khare and Megha Singh; DLF Public School.
 - *Original Innovative Idea:*
Udit Grover, Kashish Kaushik, R. Hari Shankar and Dhairya Gouchwal; Delhi Public School, Vasant Kunj.
- **Ideas Competition** was held on 19 December 2018 from 9:30 to 10:30 a.m. It was an on-the-spot essay writing competition. Three prizes were awarded:
First Prize:
Kunal Garg; N.K. Bagrodia Public School
Second Prize:
Dhruv Agrawal; Delhi Public School, R.K. Puram
Third Prize:
Esha Goel; Maharaja Agrasen Model School, Pitampura.

PROGRAMME SCHEDULE

DAY 1	Monday, 18 December 2017
08.30 am to 09.15 am	Registration Venue: Miranda Arcade and Miranda Foyer
09.15 am to 09.30 am	<i>Welcome Address: Introduction to INSPIRE Internship Programme</i> Dr. Pratibha Jolly, Principal Miranda House and PI DSKC
09.30 am to 10.30 am	Motivational Talk 1 <i>Artificial Intelligence: Is it time for Dr Computer?</i> Dr. Anurag Agrawal Director, CSIR-IGIB, Delhi
10.30 am to 11.00 am	Poster Exhibition Mid Day Snack
11.00 am to 12.15 pm	Motivational Talk 2 <i>Large scale visual reconstruction and application to autonomous driving</i> Professor Subhashis Banerjee Department of Computer Science, IIT Delhi, New Delhi
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 2	Tuesday, 19 December 2017
09.30 am to 10.30 am	Ideas Conclave and Competition <i>Venues: Lecture Theatres</i>
10.30 am to 10.45 am	Mid Day Snack
10.45 am to 12.00 pm	Motivational Talk 3 <i>Connecting Sciences through genomics</i> Dr. Mitali Mukerji Senior Principal Scientist, CSIR-IGIB, Delhi
12.00 pm to 01.15 pm	Stage Science Show <i>National Science Centre</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 3	Wednesday, 20 December 2017
09.30 am to 10.45 am	Motivational Talk 4 <i>Ultra accurate atomic clocks - keeping correct time for a billion years</i> Dr. Amitava Sen Gupta Distinguished Research Professor, The NorthCap University, Gurgaon
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 12.15 pm	Motivational Talk 5 <i>Mind, machines and a Meaningful Dialogue</i> Dr. Anshu Bhardwaj Scientist, CSIR-Institute of Microbial Technology, Chandigarh
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>

DAY 4	Thursday, 21 December 2017
09.30 am to 10.45 am	Motivational Talk 6 <i>A Different Perspective on Clean Energy - Water to the rescue!"</i> Dr. Deepa Khushalani Associate Professor, Department of Chemical sciences, TIFR, Mumbai
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 12.15 pm	Motivational Talk 7 <i>Career in science: A road map to success and happiness</i> Professor Yogendra Singh Department of Zoology, University of Delhi, Delhi
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 5	Friday, 22 December 2017
09.30 am to 10.45 am	Motivational Talk 8 <i>Approaches to New Drug Discovery-Bugs to Superbugs and Antibiotics to Protein Antibiotics- A fight for the survival</i> Professor T. P. Singh, INSA Senior Scientist, AIIMS New Delhi
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 03.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
03.00 pm to 04.00 pm	Valedictory Session <i>Feedback</i> <i>Distribution of Certificates</i>

Hands-on Workshop Titles

1. Chemistry: The Green Pathway
2. Chemistry: Colours of Gold and Silver
3. DNA and Enzymes: Tiny but Mighty Players
4. DNA: Close Encounters
5. The Cell: Life's Playground
6. Designing Life: Small Experiments
7. World of Molecules: Playing with Structures
8. Physics: The World in Motion
9. Physics: Sense, Measure and Control the World
10. Amusement Park Physics
11. Robotics: Impacting Life
12. Going Green: Science for a Sustainable Future
13. Simulations and Video Analysis: The Modelling Game
14. Remote Sensing: Map Your Environment
15. Forensics: To Catch a Thief

**LIST OF EXPERTS/ MENTORS
FROM OUTSIDE MIRANDA HOUSE**

1. Dr. Anurag Agrawal, Director, CSIR-IGIB, Delhi
2. Professor Subhashis Banerjee, Department of Computer Science, IIT Delhi, New Delhi
3. Dr. Mitali Mukerji, Senior Principal Scientist, CSIR-IGIB, Delhi
4. Dr. Dinesh Malik, Education Officer, National Science Centre
5. Dr. Amitava Sen Gupta, Distinguished Research Professor, The NorthCap University, Gurgaon
6. Dr. Anshu Bhardwaj, Scientist, CSIR-Institute of Microbial Technology, Chandigarh
7. Dr. Deepa Khushalani, Associate Professor, Department of Chemical Sciences, TIFR, Mumbai
8. Professor Yogendra Singh, Department of Zoology, University of Delhi, Delhi
9. Professor T. P. Singh, INSA Senior Scientist, AIIMS New Delhi

**LIST OF EXPERTS/ MENTORS
FROM MIRANDA HOUSE**

Department of Chemistry

1. Dr. Adarsh Gulati
2. Dr. Bani Roy
3. Dr. Amrita T. Sheikh
4. Dr. Mallika Pathak
5. Dr. Sharda Mahilkar Sonkar
6. Dr. Kalawati Saini
7. Dr. Malti Sharma
8. Dr. Smriti Sharma Bhatia
9. Dr. Sujata Sengupta
10. Dr. Poonam
11. Dr. Manika Dewan
12. Dr. M. Rajeshwari
13. Dr. Firdaus Parveen
14. Ms. Shivani

Department of Physics

1. Dr. Mallika Verma
2. Dr. Bilasini N. Devi
3. Dr. Monika Tomar
4. Ms. Sumana Devi
5. Dr. Nirmala Saini
6. Dr. Raishma Krishnan
7. Dr. Divakar Pathak
8. Dr. S.N. Sandhya
9. Dr. Sunita Singh
10. Dr. Geeta Rani
11. Dr. Sonam Singh

Department of Botany

1. Dr. Janaki Subramanyan
2. Dr. Madhu bajaj
3. Dr. Saloni Bahri
4. Dr. Deepali
5. Dr. Neetu Chaudhary
6. Dr. Somdutta Sinha Roy
7. Dr. Renuka Agrawal
8. Dr. Veena Beri

Department of Zoology

1. Dr. Rekha Kumari
2. Dr. Jyoti Arora
3. Dr. Sadhna Sharma
4. Dr. Monika Sharma
5. Dr. Simranjit
6. Dr. Pooja Suman
7. Dr. Deepak Yadav
8. Ms. Yasha Yadav

Department of Geography

1. Dr. Monika Vij
2. Dr. Priyanka Puri
3. Dr. Manjit Singh

Department of Mathematics

1. Dr. Meetu Bhatia Grover
2. Dr. Durvesh Kumar Verma
3. Dr. Rekha Gupta
4. Ms. Shweta Gandhi

LIST OF PARTICIPATING SCHOOLS

S.No.	Name of School	Number of students
1	Army Public School, Dhaula Kuan	11
2	Bal Bharati Public School, Dwarka	10
3	DLF Public School, Sahibabad	12
4	Delhi Public School, Mathura Road	10
5	Delhi Public School, R K Puram	25
6	Delhi Public School, Vasant Kunj	26
7	G.D. Goenka Public School	2
8	Gyan Bharati School, Saket	3
9	Kendriya Vidyalaya, Murad Nagar	7
10	Kendriya Vidyalaya, Sainik Vihar	9
11	Maharaja Agrasen Model School, Pitampura	10
12	Modern Era Convent School	6
13	N.K. Bagrodia Public School	13
14	Ramjas Public School (Day Boarding)	8
15	Ramjas School, Pusa Road	10
16	Springdales School, Pusa Road	7
17	Sri Venkateshwar International School, Dwarka	8
18	St. Thomas School, Mandir Marg	10
19	Tagore International School, East of Kailash	3
20	Tagore International School, Vasant Vihar	10
21	The Srijan School	4
	Total Number of Students	204

LIST OF PARTICIPATING STUDENTS:

S.No	School Name	S.No	Name of Student
1	Army Public School, Dhaula Kuan	1	Abhavya Roy
		2	Chaitanya Chugh
		3	Divyangi Singh
		4	Neha Kathayat
		5	Nivedita Pant
		6	Rinky
		7	Sachin Kumar
		8	Sanjana Sajjanhar
		9	Sudip Maji
		10	Toyeesh Sinha
		11	Vishal Vishwakarma
2	Bal Bharati Public School, Dwarka	1	Anubha Gupta
		2	Bhumika
		3	Arushi Tuteja
		4	Gaurav Lamba
		5	Jeevesh Kumar Maurya
		6	Karan Kumar
		7	Kashvi Jain
		8	Mihir Bhatia
		9	Samriddhi Sharma
		10	Utsav Bhardwaj
3	DLF Public School, Sahibabad	1	Sarthak Agarwal
		2	Nayak Bhatia
		3	Sagar Verma
		4	Priya Deoli
		5	Muskaan Joshi
		6	Nishant G Nath
		7	Ria Singh
		8	Megha Singh
		9	Mayank Gupta
		10	Yash Khare
		11	Shivam Goel
		12	Poornansh
4	Delhi Public School, Mathura Road	1	Anoushka Hooda
		2	N. Nikhillkumar Singh
		3	Anshika Jain
		4	Sristi Gupta
		5	Prashant Sharma
		6	Salwa Mohammad Haseen
		7	Mudita Gupta
		8	Naman Garg
		9	Neha Goel
		10	Vibhuti Roach

5	Delhi Public School, R K Puram	1	Abhiluv Anand
		2	Aditi Jain
		3	Ananya Goel
		4	Animesh Kumar
		5	Anushka Agrawal
		6	Chitraditya Singh Negi
		7	Dhairya Sethi
		8	Dhruv Agrawal
		9	Divyam Dang
		10	Ishita Yaduvanshi
		11	Jahanvi Yadav
		12	Kunika Agrawal
		13	Pranav Arora
		14	Pratishruti Singh
		15	Punya Gupta
		16	Ritvik Gupta
		17	Tanay Kumar
		18	Unnati Varshney
		19	Vipin
		20	Vishrut Malik
		21	Vrushank Agarwal
		22	Ashma Pandya
		23	Vedika Virmani
		24	Subohi Agarwal
		25	Sankalp Mody

6	Delhi Public School, Vasant Kunj	1	Amanpreet Singh Wasir
		2	Ameek singh
		3	Ananya K.sharma
		4	Annika Gupta
		5	Ashima Jain
		6	Dhairya Gouchwal
		7	Hannviksha Singh
		8	Ishita Chadha
		9	Kanika Naresh Singh
		10	Kashish Kaushik
		11	Kendra Bansal
		12	Kritika Kaur Sodhi
		13	Kshitij Pasricha
		14	Maneea Sunil Agrawaal
		15	Niharika Jagga
		16	Omanshi Agarwal
		17	Piaa Jain
		18	Prisha Mehta
		19	R Hari Shankar
		20	Rishi Koul
		21	Saakshaat Singh
		22	Saumya Sharma
		23	Tanishq Yadav

		24	Udit Grover
		25	Vaishnavi Chilkoti
		26	Varnika Sahi
7	G.D. Goenka Public School	1	Amit Gupta
		2	Pranjal Aggarwal
8	Gyan Bharati School, Saket	1	Ananya Kansal
		2	Prachi Prakash
		3	Purvi Singh
9	Kendriya Vidyalaya, Murad Nagar	1	Abhishek Goswami
		2	Chandirmani Sharma
		3	Chirag Tyagi
		4	Karan
		5	Shivam Yadav
		6	Shubham Singh
		7	Vinay Singh
10	Kendriya Vidyalaya, Sainik Vihar	1	Anshuman Chaudhary
		2	Muskan Rajput
		3	Shaurya Jangra
		4	Shourya
		5	Sidhant
		6	Tushar
		7	Vanshika
		8	Vivek Kumar Pandey
		9	Yogender Kumar
11	Maharaja Agrasen Model School, Pitampura	1	Bhartendu
		2	Bhashit Dobriyal
		3	Esha Goel
		4	Harshit Gupta
		5	Kunal Uppal
		6	Sahil Basia
		7	Sakshi Jain
		8	Shaifali Sharma
		9	Shubham Jindal
		10	Sonal Aggarwal
11	Modern Era Convent School	1	Dilpreet Kaur
		2	Dhruv Tiwari
		3	Priyam Bhuteja
		4	Sanya Arora
		5	Sharanya B.G.
		6	Vandana Chander Takhi
12	N.K. Bagrodia Public School	1	Sakshi Aggarwal
		2	Mehak
		3	Yash
		4	Kunal Garg
		5	Palak Yadav

		6	Vedanshi Saini
		7	Prerna Tomar
		8	Deepak Joshi
		9	Saksham Minocha
		10	Sahil Harjai
		11	Manas Gupta
		12	Divyanshu Jangir
		13	Pushaan Sharma

13	Ramjas Public School (Day Boarding)	1	Ansh Gera
		2	Gervit K Trehan
		3	Himali Khandelwal
		4	Mukunda Gandhi
		5	Rishika Khandelwal
		6	Sharanya Mannan
		7	Shubhangi
		8	Utkarsh

14	Ramjas School, Pusa Road	1	Aayush Anand
		2	Arunav Bhattacharjee
		3	Chiranjib Guha
		4	Gunjan Makhijani
		5	Himanshu Goel
		6	Marut Mishra
		7	Riya Jain
		8	Sarthak Khandelwal
		9	Shruti Garg
		10	Vaibhav Sharma

15	Springdales School, Pusa Road	1	Anusha Chakrabarti
		2	Divij Gera
		3	Harshita Bedi
		4	Jayana
		5	Sara Chopra
		6	Tanisha Ghai
		7	Varij Vinayak

16	Sri Venkateshwar International School, Dwarka	1	Ishika Rai
		2	Saksham Grover
		3	Shreyash Manral
		4	Srishti Singh
		5	Stubh Lal
		6	Sumit Kumar Mohapatra
		7	Tushar Yadav
		8	Vaibhav Gupta

17	St. Thomas School, Mandir Marg	1	Aarzu Wadhwa
		2	Aastha Nautiyal
		3	Arushi Behera
		4	Dishita Gupta
		5	Ishani Kohli
		6	Jaslyn Kaur

		7	Maulika Arora
		8	Navya Bhutani
		9	Priyamvada Vashishth
		10	Tanishka Watts
18	Tagore International School, East of Kailash	1	Sarvagya Chhabra
		2	Sanyog Gupta
		3	Parth Arora
19	Tagore International School, Vasant Vihar	1	Anisha Bhatnagar
		2	Bhavya Kalia
		3	Jaishna Singh Bhogal
		4	Jerin Bose
		5	Manan Bhatia
		6	Saksham Wadhwa
		7	Shraddha Mohapatra
		8	Shruti Barua
		9	Sreelakshmi Viswam
		10	Tushar Tiwari
20	The Srijan School	1	Aditi Shekhar
		2	Aman Aggarwal
		3	Sahil Dhingra



18 – 22 December 2017

ATTENDANCE

School Name	S.No	Name of Student	18/12	19/12	20/12	21/12	22/12
Army Public School, Dhaula Kuan	1	Abhavya Roy	-	✓ Abhavya Roy	-	-	-
	2	Chaitanya Chugh	Chaitanya	✓ Chaitanya	Chaitanya	Chaitanya	Chaitanya
	3	Divyangi Singh		A			
	4	Neha Kathayat	Neha	A	Neha	Neha	Neha
	5	Nivedita Pant	Nant	Nant	Nant	Nant	Nant
	6	Rinky	Rinky	Rinky	Rinky	Rinky	Rinky
	7	Sachin Kumar	Sachin	✓ Sachin	Sachin	Sachin	Sachin
	8	Sanjana Sajjanhar		A			
	9	Sudip Maji		A			
	10	Toyeesh Sinha	Toyeesh	Toyeesh	Toyeesh	Toyeesh	Toyeesh
	11	Vishal Vishwakarma	Vishal	Vishal	Vishal	Vishal	Vishal
Bal Bharati Public School, Dwarka	1	Anubha Gupta	Anubha	Anubha	Anubha	Anubha	Anubha
	2	Bhumika	Bhumika	Bhumika	Bhumika	Bhumika	Bhumika
	3	Dhruv Prashar ARUSHI TUTEJA	Dhruv	Dhruv	Dhruv	Dhruv	Dhruv
	4	Gaurav Lamba	Gaurav	Gaurav	Gaurav	Gaurav	Gaurav
	5	Jeevesh Kumar Maurya	Jeevesh	Jeevesh	Jeevesh	Jeevesh	Jeevesh
	6	Karan Kumar	Present	A			
	7	Kashvi Jain	Kashvi	Kashvi	-	Kashvi	Kashvi
	8	Mihir Bhatia	Present	A			
	9	Samriddhi Sharma	Present	A	Samriddhi		
	10	Utsav Bhardwaj	Present	A			
DLF Public School Sahibabad	1	Sarthak Agarwal	Sarthak	Sarthak	Sarthak	Sarthak	
	2	Nayak Bhatia	N	N	N	N	N
	3	Sagar Verma Poornanash	Poornanash	Poornanash	Poornanash	Poornanash	Poornanash
	4	Priya Deoli	Priya	Priya	Priya	Priya	Priya
	5	Muskaan Joshi	M. Joshi	M. Joshi	M. Joshi	M. Joshi	
	6	Nishant G Nath	Nishant	Nishant	Nishant	Nishant	Nishant
	7	Ria Singh	R. Singh	R. Singh	R. Singh	R. Singh	R. Singh
	8	Megha Singh Premanshu Sinha	A	A	A	Rishi	Rishi
	9	Mayank Gupta	Mayank	Mayank	Mayank	Mayank	Mayank

DPS Mathura Road	10	Yash Khare	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>
	11	Shivam Goel	<u>Shivam</u>	<u>Shivam</u>	<u>Shivam</u>	<u>Shivam</u>	<u>Shivam</u>
	1	Anoushka Hooda	<u>Anoushka</u>	<u>Anoushka</u>	<u>Anoushka</u>	<u>Anoushka</u>	<u>Anoushka</u>
	2	N. Nikhillkumar Singh	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
	3	Anshika Jain	<u>Anshika</u>	<u>Anshika</u>	<u>Anshika</u>	<u>Anshika</u>	<u>Anshika</u>
	4	Sristi Gupta	<u>Sristi</u>	<u>Sristi</u>	<u>Sristi</u>	<u>Sristi</u>	<u>Sristi</u>
	5	Prashant Sharma	Present	A			
	6	Salma Mohammad Haseen	<u>Salma</u>	<u>Salma</u>	<u>Salma</u>	<u>Salma</u>	<u>Salma</u>
	7	Mudita Gupta	<u>Mudita</u>	<u>Mudita</u>	<u>Mudita</u>	<u>Mudita</u>	<u>Mudita</u>
	8	Naman Garg	<u>Naman</u>	<u>Naman</u>			
	9	Neha Goel	<u>Neha</u>	<u>Neha</u>	<u>Neha</u>		<u>Neha</u>
	10	Vibhuti Roach	<u>Vibhuti</u>	<u>Vibhuti</u>	<u>Vibhuti</u>	<u>Vibhuti</u>	<u>Vibhuti</u>

School Name	S.No	Name of Student	18/12	19/12	20/12	21/12	22/12
Sri Venkateshwar International School, Dwarka	1	Ishika Rai	<u>Ishika</u>	<u>Ishika</u>	<u>Ishika</u>	<u>Ishika</u>	<u>Ishika</u>
	2	Saksham Grover	<u>Saksham</u>	<u>Saksham</u>	<u>Saksham</u>	<u>Saksham</u>	<u>Saksham</u>
	3	Shreyash Manral	<u>Shreyash</u>	<u>Shreyash</u>	<u>Shreyash</u>	<u>Shreyash</u>	<u>Shreyash</u>
	4	Srishti Singh	<u>Srishti</u>	<u>Srishti</u>	<u>Srishti</u>	<u>Srishti</u>	<u>Srishti</u>
	5	Stubh Lal	<u>Stubh</u>	<u>Stubh</u>	<u>Stubh</u>	<u>Stubh</u>	<u>Stubh</u>
	6	Sumit Kumar Mohapatra	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>
	7	Tushar Yadav	<u>Tushar</u>	<u>Tushar</u>	<u>Tushar</u>	<u>Tushar</u>	<u>Tushar</u>
	8	Vaibhav Gupta	<u>Vaibhav</u>	<u>Vaibhav</u>	<u>Vaibhav</u>	<u>Vaibhav</u>	<u>Vaibhav</u>

Kendriya Vidyalaya, Murad Nagar	1	Abhishek Goswami	Abhishek	Abhishek	Abhishek	Abhishek	Abhishek
	2	Chandirmani Sharma	Chandirmani	Chandirmani	Chandirmani	Chandirmani	Chandirmani
	3	Chirag Tyagi	Chirag	Chirag	Chirag	Chirag	Chirag
	4	Karan	Karan	Karan	Karan	-	-
	5	Shivam Yadav	Shivam	Shivam	Shivam	Shivam	Shivam
	6	Shubham Singh	Shubham	Shubham	Shubham	Shubham	Shubham
	7	Vinay Singh					
Kendriya Vidyalaya, Sainik Vihar	1	Anshuman Chaudhary	Anshuman	Anshuman	Anshuman	Anshuman	Anshuman
	2	Muskan Rajput	Muskan	Muskan	Muskan	Muskan	Muskan
	3	Shaurya Jangra	Shaurya	Shaurya	Shaurya	Shaurya	Shaurya
	4	Shourya	Shourya	Shourya	Shourya	Shourya	Shourya
	5	Sidhant	Sidhant	-	Sidhant	Sidhant	Sidhant
	6	Tushar	Tushar	Tushar	-	-	-
	7	Vanshika	-	-	-	-	-
	8	Vivek Kumar Pandey	Vivek	Vivek	Vivek	Vivek	Vivek
	9	Yogender Kumar	Yogender	Yogender	Yogender	Yogender	Yogender
Maharaja Agarsen Model School, Pitampura	1	Bhartendu	Bhartendu	Bhartendu	Bhartendu	Bhartendu	Bhartendu
	2	Bhashit Dobriyal	Bhashit	Bhashit	Bhashit	Bhashit	Bhashit
	3	Esha Goel	Esha	Esha	Esha	-	Esha
	4	Harshit Gupta	Harshit	Harshit	Harshit	Harshit	Harshit
	5	Kunal Uppal	Kunal	Kunal	-	Kunal	Kunal
	6	Sahil Basia	Sahil	Sahil	Sahil	Sahil	Sahil
	7	Sakshi Jain	Sakshi	Sakshi	Sakshi	Sakshi	Sakshi
	8	Shaifali Sharma	Shaifali	Shaifali	Shaifali	Shaifali	Shaifali
	9	Shubham Jindal	Shubham	Shubham	Shubham	Shubham	Shubham
	10	Sonal Aggarwal	Sonal	Sonal	-	Sonal	Sonal
Modern Era Convent School	1	Dilpreet Kaur	Dilpreet	Dilpreet	Dilpreet	Dilpreet	Dilpreet
	2	Dhruv Tiwari	Dhruv	Dhruv	Dhruv	Dhruv	Dhruv
	3	Priyam Bhuteja	Priyam	Priyam	Priyam	Priyam	Priyam
	4	Sanya Arora	Sanya	Sanya	Sanya	Sanya	Sanya

		18/12	19/12	20/12	21/12	22/12
Ramjas Public School (Day Boarding)	5	Sharanya B.G.	<u>Sharanya</u>	<u>Sharanya</u>	<u>Sharanya</u>	<u>Sharanya</u>
	6	Vandana Chander Takhi	<u>Vandana</u>	<u>Vandana</u>	<u>Vandana</u>	<u>Vandana</u>
	①	Ansh Gera	<u>Ansh</u>	<u>Ansh</u>	<u>Ansh</u>	<u>Ansh</u>
	2	Gervit K Trehan	<u>Gervit</u>	<u>Gervit</u>	<u>Gervit</u>	<u>Gervit</u>
	3	Himali Khandelwal	<u>Himali</u>	<u>Himali</u>	<u>Himali</u>	<u>Himali</u>
	4	Mukunda Gandhi	<u>Mukunda</u>	<u>Mukunda</u>	<u>Mukunda</u>	<u>Mukunda</u>
	5	Rishika Khandelwal	<u>Rishika</u>	<u>Rishika</u>	<u>Rishika</u>	<u>Rishika</u>
	6	Sharanya Mannan	<u>Sharanya</u>	<u>Sharanya</u>	<u>Sharanya</u>	<u>Sharanya</u>
Tagore International School, East of Kailash	7	Shubangi	<u>Shubangi</u>	<u>Shubangi</u>	<u>Shubangi</u>	<u>Shubangi</u>
	8	Utkarsh	<u>Utkarsh</u>	<u>Utkarsh</u>	<u>Utkarsh</u>	<u>Utkarsh</u>
	1	Sarvagya Chhabra	<u>Sarvagya</u>	<u>Sarvagya</u>	<u>Sarvagya</u>	<u>Sarvagya</u>
	2	Sanyog Gupta	<u>Sanyog</u>	<u>Sanyog</u>	<u>Sanyog</u>	<u>Sanyog</u>
The Srijan School	3	Parth Arora	<u>Parth</u>	<u>Parth</u>	<u>Parth</u>	<u>Parth</u>
	1	Aditi Sankhar	<u>Aditi</u>	<u>Aditi</u>	<u>Aditi</u>	<u>Aditi</u>
	2	Aman Aggarwal	<u>Aman</u>	<u>Aman</u>	<u>Aman</u>	<u>Aman</u>
	3	Sahil Dhingra	<u>Sahil</u>	<u>Sahil</u>	<u>Sahil</u>	<u>Sahil</u>
N.K. Bagrodia Public School	4	Siffat Kaur	<u>Siffat</u>	<u>Siffat</u>	<u>Siffat</u>	<u>Siffat</u>
	1	Sakshi Aggarwal	<u>Sakshi</u>	<u>Sakshi</u>	<u>Sakshi</u>	<u>Sakshi</u>
	2	Mehak	<u>Mehak</u>	<u>Mehak</u>	<u>Mehak</u>	<u>Mehak</u>
	3	Yash	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>
	4	Deepak Joshi	<u>Deepak</u>	<u>Deepak</u>	<u>Deepak</u>	<u>Deepak</u>
	5	Kunal Garg	<u>Kunal</u>	<u>Kunal</u>	<u>Kunal</u>	<u>Kunal</u>
	6	Palak Yadav	<u>Palak</u>	<u>Palak</u>	<u>Palak</u>	<u>Palak</u>
	7	vedausi Saini	<u>vedausi</u>	<u>vedausi</u>	<u>vedausi</u>	<u>vedausi</u>
	8	PurnaTomar	<u>Purna</u>	<u>Purna</u>	<u>Purna</u>	<u>Purna</u>
	9	Saksham Minocha	<u>Saksham</u>	<u>Saksham</u>	<u>Saksham</u>	<u>Saksham</u>
	10	Sahil Harjai	<u>Sahil</u>	<u>Sahil</u>	<u>Sahil</u>	<u>Sahil</u>
	11	Manas Gupta	<u>Manas</u>	<u>Manas</u>	<u>Manas</u>	<u>Manas</u>
	12	Pushaan Sharma	<u>Pushaan</u>	<u>Pushaan</u>	<u>Pushaan</u>	<u>Pushaan</u>
	13	Divyanshu Jangir	<u>Divyanshu</u>	<u>Divyanshu</u>	<u>Divyanshu</u>	<u>Divyanshu</u>

School Name	S.No	Name	18/12	19/12	20/12	21/12	22/12
DPS, R K Puram	1	Abhiluv Anand					
	2	Aditi Jain	Aditi	Aditi	Aditi	Aditi	Aditi
	3	Ananya Goel	Ananya	Ananya	Ananya	Ananya	Ananya
	4	Anoushka Sharma	Anoushka	Anoushka	Anoushka	Anoushka	Anoushka
	5	Anushka Agrawal	Anushka	Anushka	Anushka	Anushka	Anushka
	6	Chitraditya Singh Negi	Chitraditya	Chitraditya	Chitraditya	Chitraditya	Chitraditya
	7	Dhairya Sethi	Dhairya	Dhairya	Dhairya	Dhairya	Dhairya
	8	Dhruv Agrawal	Dhruv	Dhruv	Dhruv	Dhruv	Dhruv
	9	Divyam Dang	Divyam	Divyam	Divyam	Divyam	Divyam
	10	Ishita Yaduvanshi	Ishita	Ishita	Ishita	Ishita	Ishita
	11	Jahnvi Yadav	Jahnvi	Jahnvi	Jahnvi	Jahnvi	Jahnvi
	12	Kunika Agrawal	Kunika	Kunika	Kunika	Kunika	Kunika
	13	Pranav Arora	Pranav	Pranav	Pranav	Pranav	Pranav
	14	Pratishruti Singh	Pratishruti	Pratishruti	Pratishruti	Pratishruti	Pratishruti
	15	Punya Gupta	Punya	Punya	Punya	Punya	Punya
	16	Ritvik Gupta	Ritvik	Ritvik	Ritvik	Ritvik	Ritvik
	17	Tanay Kumar	Tanay	Tanay	Tanay	Tanay	Tanay
	18	Unnati Varshney	Unnati	Unnati	Unnati	Unnati	Unnati
	19	Vipin	Vipin	Vipin	Vipin	Vipin	Vipin
	20	Vishrut Malik	Vishrut	Vishrut	Vishrut	Vishrut	Vishrut
	21	Vrushank Agarwal	Vrushank	Vrushank	Vrushank	Vrushank	Vrushank
DPS, Vasant Kunj	1	Amanpreet Singh Wasir	Amanpreet	Amanpreet	Amanpreet	Amanpreet	Amanpreet
	2	Ameek singh	Ameek	Ameek	Ameek	Ameek	Ameek
	3	Ananya K.sharma	Ananya	Ananya	Ananya	Ananya	Ananya
	4	Annika Gupta	Annika	Annika	Annika	Annika	Annika
	5	Ashima Jain	Ashima	Ashima	Ashima	Ashima	Ashima
	6	Dhairya Gouchwal	Dhairya	Dhairya	Dhairya	Dhairya	Dhairya
	7	Hannviksha Singh	Hannviksha	Hannviksha	Hannviksha	Hannviksha	Hannviksha
	8	Ishita Chadha	Ishita	Ishita	Ishita	Ishita	Ishita
	9	Kanika Naresh Singh	Kanika	Kanika	Kanika	Kanika	Kanika
	10	Kashish Kaushik	Kashish	Kashish	Kashish	Kashish	Kashish
	11	Kendra Bansal	Kendra	Kendra	Kendra	Kendra	Kendra
	12	Kritika Kaur Sodhi	Kritika	Kritika	Kritika	Kritika	Kritika
	13	Kshitij Pasricha	Kshitij	Kshitij	Kshitij	Kshitij	Kshitij
	14	Maneea Sunil Agarwal	Maneea	Maneea	Maneea	Maneea	Maneea
	15	Niharika Jain	Niharika	Niharika	Niharika	Niharika	Niharika
	16	Omanshi Bansal	Omanshi	Omanshi	Omanshi	Omanshi	Omanshi

Teacher: Purnima Singh
Saijal

(9810184129)

	17	Piaa Jain	Piaa	Piaa	Piaa	Piaa	Piaa
	18	Prisha Mehta	Prisha	Prisha	Prisha	Prisha	Prisha
	19	R Hari Shankar	R Hari	R Hari	R Hari	R Hari	R Hari
	20	Rishi Koul	Rishi	Rishi	Rishi	Rishi	Rishi
	21	Saakshaat Singh	Saakshaat	Saakshaat	Saakshaat	Saakshaat	Saakshaat
	22	Saumya Sharma	Saumya	Saumya	Saumya	Saumya	Saumya
	23	Tanishq Yadav	Tanishq	Tanishq	Tanishq	Tanishq	Tanishq
	24	Udit Grover	Udit	Udit	Udit	Udit	Udit
	25	Vaishnavi Chilkoti	Vaishnavi	Vaishnavi	Vaishnavi	Vaishnavi	Vaishnavi
	26	Varnika Sahi	Varnika	Varnika	Varnika	Varnika	Varnika

DP S R.K.
PURAM

22. ✓ ANIMESH KUMAR
23. SUBOHI AGARWAL
24. ✓ VEDIKA VIRMANI
25. ✓ ASHMA PANDYA
26. ✓ ANANYA KAPOOR
27. ✓ Sankalp Mody

18/12	19/12	20/12	21/12	22/12
An	An	An	An	An
Sub	Sub	Sub	Sub	Sub
Vedika	Vedika	Vedika	Vedika	Vedika
Ashma	Ashma	Ashma	Ashma	Ashma
Ananya	Ananya	Ananya	Ananya	Ananya
Sankalp	Sankalp	Sankalp	Sankalp	Sankalp

Springdales School, Pusa Road	1	Anusha Chakrabarti	Anusha	Anusha	Anusha	Anusha	Anusha
	2	Divij Gera	Divij	Divij	Divij	Divij	Divij
	3	Harshita Bedi Samarth Arora	Samarth	Samarth	Samarth	Samarth	Samarth
	4	Jayana	Jayana	Jayana	Jayana	Jayana	Jayana
	5	Sara Chopra	Sara	Sara	Sara	Sara	Sara
	6	Tanisha Ghai	Tanisha	Tanisha	Tanisha	Tanisha	Tanisha
	7	Varij Vinayak	Varij	Varij	Varij	Varij	Varij
St. Thomas School, Mandir Marg	1	Aarzu Wadhwa	Aarzu	Aarzu	Aarzu	Aarzu	Aarzu
	2	Aastha Nautiyal	Aastha	Aastha	Aastha	Aastha	Aastha
	3	Arushi Behera	Arushi	Arushi	Arushi	Arushi	Arushi
	4	Dishita Gupta	Dishita	Dishita	Dishita	Dishita	Dishita
	5	Ishani Kohli	Ishani	Ishani	Ishani	Ishani	Ishani

Tagore International School, Vasant Vihar	6	Jaslyn Kaur	Kay	Kay	Kay	Kay
	7	Maulika Arora	Maulika	Maulika	Maulika	Maulika
	8	Navya Bhutani	NB	NB	NB	NB
	9	Priyamvada Vashishth	Priyamvada	Priyamvada	Priyamvada	Priyamvada
	10	Tanishka Watts	Tanishka	Tanishka	Tanishka	Tanishka
	1	Anisha Bhatnagar	Anisha	Anisha	Anisha	Anisha
	2	✓ Bhavya Kalia	Bhav	Bhav	Bhav	Bhav
	3	✓ Jaishna Singh Bhogal	JS	JS	JS	JS
	4	✓ Jerin Bose	Jerin	Jerin	Jerin	Jerin
	5	✓ Manan Bhatia	Man	Man	Man	Man
	6	✓ Saksham Wadhwa	Saksh	Saksh	Saksh	Saksh
	7	✓ Shraddha Mohapatra	Shraddha	Shraddha	Shraddha	Shraddha
	8	✓ Shruti Barua	Shruti	Shruti	Shruti	Shruti
	9	✓ Sreelakshmi Viswam	Sreelakshmi	Sreelakshmi	Sreelakshmi	Sreelakshmi
	10	✓ Tushar Tiwari	Tushar	Tushar	Tushar	Tushar



18 – 22 December 2017

IDEAS CONCLAVE AND COMPETITION

IDEAS COMPETITION

Essay Competition held on 19 December 2017

Prizes

First Prize:

Kunal Garg; N.K. Bagrodia Public School

Second Prize:

Dhruv Agrawal; Delhi Public School, R.K. Puram

Third Prize:

Esha Goel; Maharaja Agrasen Model School, Pitampura.

In your opinion, what are the two major challenges facing India at present? Approach the topic as a budding scientist and briefly outline how each challenge can be tackled (250 words).

First Prize

Kunal Garg; NK Bagrodia Public School

Every year India generates a huge amount of trash. In 2016, India generated 2 million tonnes of e-waste, which is one of the highest in the world. Such a large amount of waste indicates that the resources are being destroyed rather than utilized for the development of the nation. E-waste disposal can be harmful so rather it should be recycled. Recycling consumes only 10% of what the consumption would be if the product is made from raw materials again. Also, huge amounts of biodegradable waste lie on the roadside, resulting in foul smell and spread of communicable diseases. This can be used for biogas production for multiple uses such as cooking and running agricultural machinery. Moreover, it also leaves behind nutrient-rich manure which replenishes the soil with minerals for a healthy yield of crops. This strategy can also be adopted for agricultural waste in rural areas. In India, where more than 50% of the population live in rural areas and are dependent on agriculture, it could prove very effective. Converting trash into something useful is good strategy.

Generation of electricity using coal is wastage of non-renewable resource. Rather, nuclear energy should be promoted and utilized for electricity generation. The problem India is facing in the generation of nuclear energy is the shortage of fuel. It has to import it from other countries, which is very costly. India has large deposits of Uranium 235 in Ladakh. This is one of the biggest deposits in the world but the problem is that India does not have the technology to utilize the poorer grade of ore found here. New technology needs to be developed and adopted to harness this resource. If we are able to utilize these resources, our energy needs can be catered to, to a large extent. It will save valuable coal and petroleum.

“Science can help you to create a difference”.

Second Prize

Dhruv Agrawal; Delhi Public School RK Puram

One of the major challenges facing India at present is of proper waste disposal. Heaps of garbage lying around with flies buzzing around them has become a common sight. For proper waste disposal, there needs to be a systematic segregation of waste. This is essential because different types of waste have different methods of disposal. Non-recyclable wastes should be submitted for recycling rather than being sent to the city dumps or compost pits as they stay around for a long time and harm the environment. The government should come up with an authority with many offices across the country, especially in the metropolitan cities, and should collect plastics and other recyclable waste from residents for recycling and provide them subsidies in return.

The second issue we are facing is the lack of ways of harnessing energy from renewable sources. We have a large potential of harnessing renewable resources for generation of energy. We have many geysers which can be used for generation of electricity. Moreover, we must increase the use of solar panels for trapping sunlight to generate electricity. We have an abundance of sunlight but we don't tap this resource to its full potential. There should be more awareness about sustainable resources of energy and the government should offer schemes to people for purchase of solar panels at cheaper prices so that everyone can afford them. If we tap our resources sustainably and to the full potential, it would enhance the efficiency of many industrial processes and lead to India's development, making it a strong competitor at the global level.

Third Prize

Esha Goel; Maharaja Agrasen Model School

Challenges and obstacles are an indicator of success but the actual progress lies in overcoming them. Likewise, India also has hurdles in achieving the title of a developed country. There might be several challenges that the nation has to face but in my opinion, the two major challenges are: lack of proper utilisation of ignited brains and incompatible technology use in daily life. India, being one of the leading developing countries, is still stuck with old methods and technologies for security. In fact, the security systems of ATMs too are outdated and the Aadhar card also does not have specialised security. This disability puts off young people from working in their country and for their country. Walking with the world in terms of technology will help India cross these hurdles and others too. Artificial Intelligence is one such technology which when implemented for purposes like security, defence etc. can bear fruit for us. The two challenges and their solutions are intertwined. With the help and cooperation of other nations, India can use existing technology to utilise the new minds to the fullest. With the youth's potential, India can create new technology to boost up the economy and the pace of achieving development for our masses, the ultimate aim. I, as an Indian, would wish to see my nation on top and will give my fullest for technological development.

IDEAS CONCLAVE

All participating schools were required to submit at least one poster based on new and innovative ideas addressing one issue of National Importance on 18 December 2018. An exhibition of the submitted posters titled *One Idea Can Change the World* was put on display from 18 to 22 December 2017.

Entries for Ideas Conclave

School	Poster Title	Names of Students
Ramjas Public School (Day Boarding)	<i>River Rejuvenation</i>	Utkarsh, Himali, Sharanya
	<i>Solid and Liquid Waste Management</i>	Gervit, Ansh, Rishika
Tagore International School, Vasant Vihar	<i>Harnessing Modern Technology for Second Green Revolution</i>	Sreelakshmi, Shraddha Mohapatra, Anisha Bhatnagar, Tushar Tiwari
	<i>Clean Energy</i>	Manan Bhatia, Terin Bose, Saksham Wadhwa
	<i>Make in India</i>	Taishna Singh, Shruti Barua, Bhavya Kalia
Springdales School, Pusa Road	<i>Solid and Liquid Waste Management</i>	Tanisha Ghai, Sara Chopra, Samarth Arora, Anusha Chakrabarti
	<i>Clean Energy</i>	Divij Gera, Jayana, Varij Vinayak
Sri Venkateshwar International School	<i>The Clean Energy Conundrum</i>	Stubh Lal, Shreyash Manral, Sumit Mohapatra, Srishti Singh
	<i>Rejuvenating the Lifeline of Existence</i>	Saksham Grover, Tushar Yadav, Vaibhav Gupta, Ishika Rai
Delhi Public School, Vasant Kunj	<i>Second Green Revolution</i>	Kritika Kaur Sodhi, Kshitij Pasricha, Ameet Singh, Varnika Sahi
	<i>Clean Energy</i>	Kashish Kaushik, R. Hari Shankar, Dhairya Gouchwal, Udit Grover
	<i>Clean Energy</i>	Piaa Jain, Saumya Sharma, Saakshaat Singh
Modern Era Convent	<i>Innovative Ideas that can Change the World</i>	Sanya Arora, Sharanya B.G., Dilpreet Kaur, Vandana Chander Takhi
DLF Public School, Sahibabad	<i>Swachh Bharat, Swasth Bharat</i>	Mayank Gupta, Yash Khare, Megha Singh
Army Public School	<i>Swachh Bharat</i>	Jaskirat Panjraht
	<i>River Rejuvenation</i>	Jaskirat Panjraht
	<i>Dairy and Livestock Sector</i>	Jaskirat Panjraht

Delhi Public School, Mathura Road	<i>Energy Conservation</i>	Anoushka Hooda, Vibhuti Roach, Salwa Mohammad
	<i>Harnessing Modern Technology for Second Green Revolution</i>	Srishti Gupta, Anshika Jain, Prashant Sharma, N. Nikhilkumar Singh
	<i>Innovation in Clean Energy</i>	Mudita Gupta, Naman Garg, Neha Goel
Kendriya Vidyalaya, Sainik Vihar	<i>Innovation in Energy</i>	Muskan Rajput, Anshuman Chaudhary, Shaurya Jangra, Vanshika
Kendriya Vidyalaya, OFM Muradnagar	<i>Utilisation of Geothermal Energy</i>	Chirag Tyagi, Abhishek Goswami, Shivam Yadav
	<i>Solid and Liquid Waste Management</i>	Chandrima Sharma, Karan, Shubham

Prizes awarded:

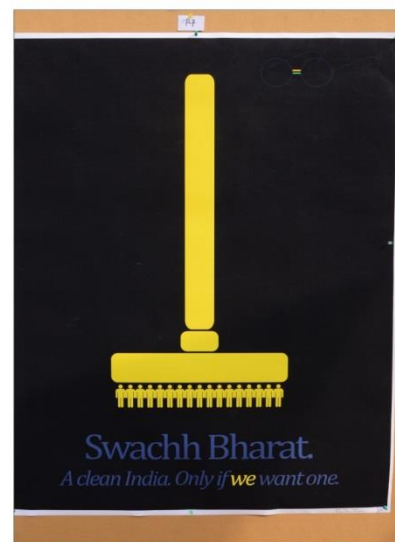
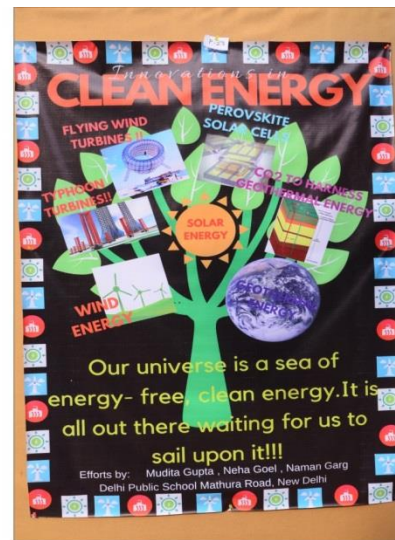
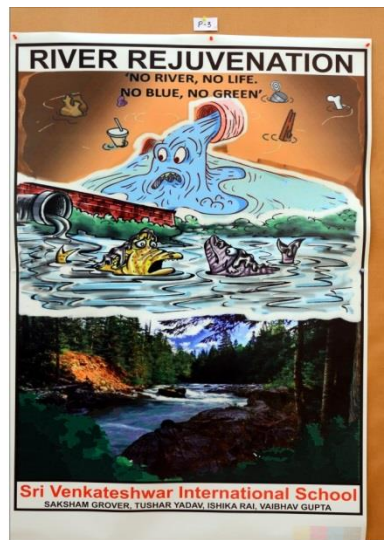
○ *Best Scientific Poster:*

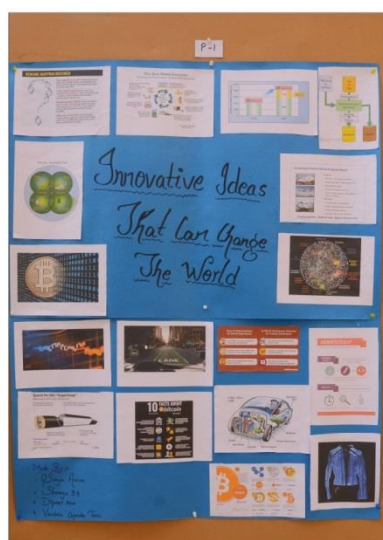
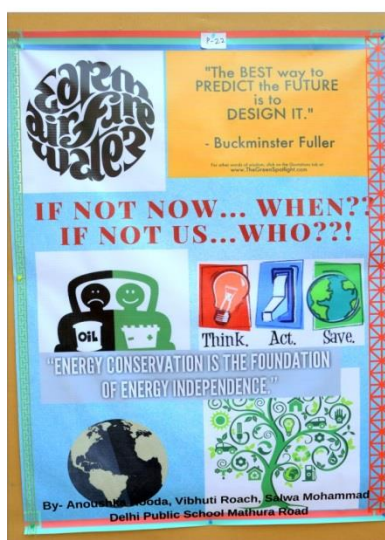
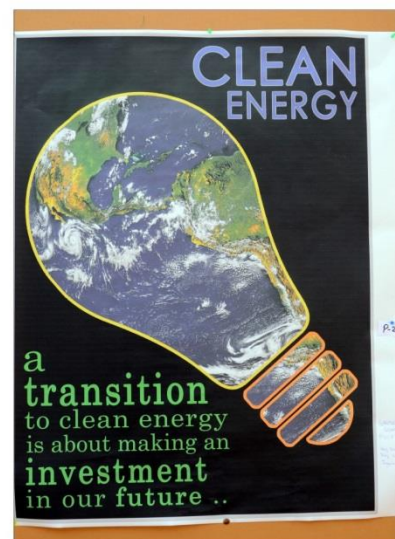
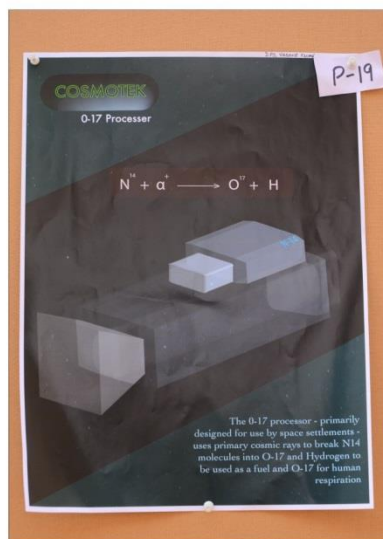
First Prize: Kritika Kaur Sodhi, Kshitij Pasricha, Ameek Singh and Varnika Sahi; Delhi Public School, Vasant Kunj.

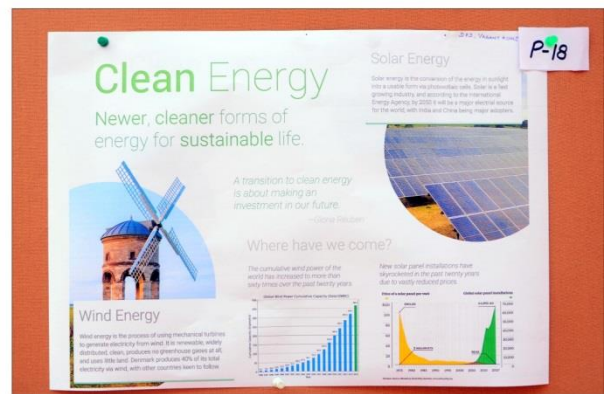
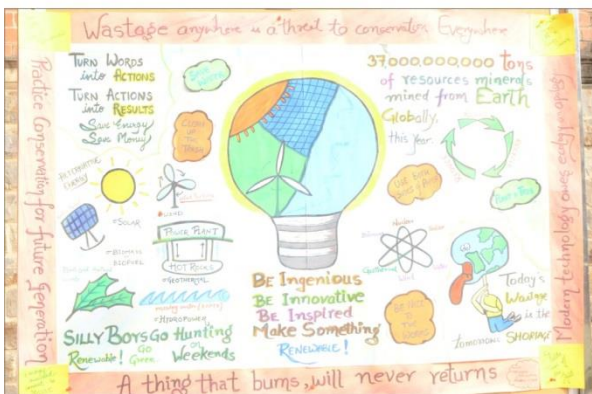
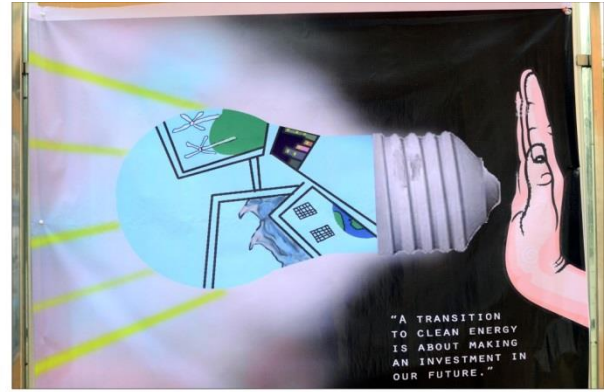
Second Prize: Mayank Gupta, Yash Khare and Megha Singh; DLF Public School.

○ *Original Innovative Idea:*

Udit Grover, Kashish Kaushik, R. Hari Shankar and Dhairya Gouchwal; Delhi Public School, Vasant Kunj.









18 – 22 December 2017

FEEDBACK

Feedback Analysis of INSPIRE Programme:

On the last day of the programme, 22 December 2017, the students were asked to fill out an Overall Feedback form. The form sought the students' opinion on the motivational talks, workshops, and the organization and management of the workshops as well as the entire programme. The feedback received is appended in Annexure I.

Feedback Analysis of Workshops:

The analysis of the feedback received for all 15 workshops is presented in Annexure I. The Workshop Feedback form required the students' opinion on the following statements regarding each workshop:

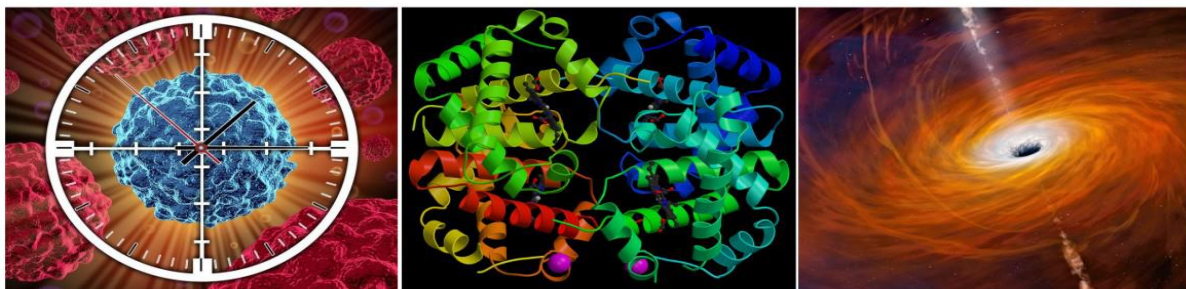
- It enhanced my conceptual understanding.
- It presented new knowledge content.
- The presentations were well organized.
- The experimental setups were novel.

From the feedback received (in Annexure II), it is clear the majority of INPIRE interns strongly agree with the above statements. The response from *Forensics: To Catch a Thief* is especially good. All in all, it is evident that all the workshops presented an opportunity for the students to enhance their knowledge through engaging experiments and demonstrations.



18 – 22 December 2017

PROMOTIONAL MATERIAL AND CERTIFICATES



Inspire Internship Programme 2017
Innovation in Science Pursuit for Inspired Research
An initiative of DST, Government of India



18-22 December 2017

Organized by
D S Kothari Centre for Research and Innovation in Science Education
Miranda House, University of Delhi



Department of Science and Technology
Ministry of Science and Technology
Government of India



D S Kothari Centre for Research and Innovation
in Science Education, Miranda House



Miranda House

**D S Kothari Centre
for Research and Innovation in Science Education
Miranda House
University of Delhi**



18-22 December 2017



**Department of Science and Technology
Ministry of Science and Technology
Government of India**



**D S Kothari Centre for Research and Innovation
in Science Education, Miranda House**



Miranda House



MIRANDA HOUSE
मिरांडा हाऊस

Dr Pratibha Jolly

Principal

Dear Principal

Warm greetings from Miranda House, University of Delhi!

You would be happy to know that the *D S Kothari Centre for Research and Innovation in Science Education* (DSKC) at Miranda House is again organizing the **INSPIRE Internship Programme** for school students of Class XI and XII, sponsored by the Department of Science and Technology. The programme will be held from **Monday, 18 December to Friday, 22 December 2017**. It is my special privilege to invite participation of eligible students from your school. Details about the **DST INSPIRE Scheme, INSPIRE Internship Programme** and *D S Kothari Centre for Research and Innovation in Science Education* are appended (*Enclosure 1*).

Registration of interest and participation: Top 1% of students in their X Board Examination and pursuing science in Higher Secondary School Education, i.e. XI and XII standard are eligible to participate in this programme. In this academic year, the top 1% cut off marks in class X for CBSE Board is 99.6% (CGPA-A1) and for ICSE Board is 95.0%. **The school may send a maximum of ten students.**

Inspire Internship Programme Format: The Internship Programme at Miranda House is carefully designed to convey to students the excitement of science on the frontiers. Renowned scientists are invited to deliver talks on issues of contemporary interest and interact with students. In year 2015, Nobel laureates Dr. Ramakrishnan Venkataraman and Professor Sir Paul Nurse were specially invited to address the Inspire Interns. The touchstone of the programme are the innovative workshops wherein students work in small groups to get hands-on experience of the process of science. The workshops conducted in state of art laboratories in Miranda House introduce students to latest equipment; computer-based data acquisition systems; and professional tools and techniques used by scientists. Additionally, some workshops introduce computational methods and exploration through computer simulations.

- **Theme:** The theme of the INSPIRE Internship Programme 2017 is **Indian Science on the Frontiers**. The tentative format and schedule is attached (*Enclosure 2*). Following the DST guidelines, the students will be actively engaged in thinking about the role of science and technology in the development of the nation.
- **Ideas Conclave:** The Internship Camp will include a **Poster Exhibition titled One Idea can Change the World**. Participating students are required to bring with them a Poster based on new and innovative ideas that can impact sustainable development and national missions. They may work individually or in teams of 2 to 4 students to create this poster. An illustrative list of themes is suggested and enclosed. (*Enclosure 3*).

- ***Ideas Competition:*** On Day 2, a session will be devoted to Ideas and Innovation wherein the students will be asked to individually write on a theme or propose solution to a problem or analyse a situation. The task will be announced on the spot. The best three write-ups will be awarded and become part of the report presented to the DST. These will also be uploaded on the DST website.

Kindly send us the names of the ten participating students and the contact details of Senior Science faculty of your school with whom we can coordinate. **In case there are more than ten eligible students, the school may set an internal criterion such as selection on the basis of an essay competition on the themes listed in *Enclosure 3*.**

The School Registration Form (*Enclosure 4*) and the individual Student Registration Form (*Enclosure 5*) completely filled in all respects must be emailed to the DSKC INSPIRE Secretariat (dskc@mirandahouse.ac.in) by Wednesday, 15 November 2017. It is essential to mention CGPA of the participating student and the science stream (Medical /Non-Medical) opted by the student in Class XI.

We also request you to nominate one or two motivated science teachers of your school engaged in teaching science to class XI or XII students to participate in the programme.

We look forward to the participation of your school and an opportunity to mentor your students.

With best regards

Sincerely

*Principal Miranda House
& Principal Investigator DSKC*

Contact:

DSKC INSPIRE Secretariat

Phone: +91-11-27666201

Fax: +91-11-27667437

Email: dskc@mirandahouse.ac.in

INSPIRE Coordinators:

Dr Mallika Verma

Dr Bani Roy

Dr Mallika Pathak

Dr Sharda Sonkar



**DS Kothari Centre for Research and Innovation in Science Education
University of Delhi**



**INSPIRE Internship Programme
18 to 22 December 2017**

Programme Schedule

DAY 1	Monday, 18 December 2017
08.30 am to 09.15 am	Registration Venue: Miranda Arcade and Miranda Foyer
09.15 am to 09.30 am	<i>Welcome Address: Introduction to INSPIRE Internship Programme</i> Dr. Pratibha Jolly, Principal Miranda House and PI DSKC
09.30 am to 10.30 am	Motivational Talk 1 <i>Artificial Intelligence: Is it time for Dr Computer?</i> Dr. Anurag Agrawal Director, CSIR-IGIB, Delhi
10.30 am to 11.00 am	Poster Exhibition Mid Day Snack
11.00 am to 12.15 pm	Motivational Talk 2 <i>Large scale visual reconstruction and application to autonomous driving</i> Professor Subhashis Banerjee Department of Computer Science, IIT Delhi, New Delhi
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 2	Tuesday, 19 December 2017
09.30 am to 10.30 am	Ideas Conclave and Competition <i>Venues: Lecture Theatres</i>
10.30 am to 10.45 am	Mid Day Snack
10.45 am to 12.00 pm	Motivational Talk 3 <i>Connecting Sciences through genomics</i> Dr. Mitali Mukerji Senior Principal Scientist, CSIR-IGIB, Delhi
12.00 pm to 01.15 pm	Stage Science Show <i>National Science Centre</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>

DAY 3	Wednesday, 20 December 2017
09.30 am to 10.45 am	Motivational Talk 4 <i>Ultra accurate atomic clocks - keeping correct time for a billion years</i> Dr. Amitava Sen Gupta Distinguished Research Professor ,The NorthCap University, Gurgaon
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 12.15 pm	Motivational Talk 5 <i>Mind, machines and a Meaningful Dialogue</i> Dr. Anshu Bhardwaj Scientist, CSIR-Institute of Microbial Technology, Chandigarh
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 4	Thursday, 21 December 2017
09.30 am to 10.45 am	Motivational Talk 6 <i>A Different Perspective on Clean Energy - Water to the rescue!"</i> Dr. Deepa Khushalani Associate Professor, Department of Chemical sciences, TIFR, Mumbai
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 12.15 pm	Motivational Talk 7 <i>Career in science: A road map to success and happiness</i> Professor Yogendra Singh Department of Zoology, University of Delhi, Delhi
12.15 pm to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 04.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
DAY 5	Friday, 22 December 2017
09.30 am to 10.45 am	Motivational Talk 8 <i>Approaches to New Drug Discovery-Bugs to Superbugs and Antibiotics to Protein Antibiotics- A fight for the survival</i> Professor T. P. Singh, INSA Senior Scientist, AIIMS New Delhi
10.45 am to 11.15 am	Mid Day Snack
11.15 am to 01.15 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
01.15 pm to 02.00 pm	Lunch
02.00 pm to 03.00 pm	Hands-on Workshop Sessions <i>Venues: DSKC Labs</i> <i>15 Parallel Workshops; student groups of 15</i>
03.00 pm to 04.00 pm	Valedictory Session <i>Feedback</i> <i>Distribution of Certificates</i>

D S Kothari Centre for Research and Innovation in Science Education

Miranda House, University of Delhi



INSPIRE INTERNSHIP PROGRAMME 2017 **Innovation in Science Pursuit for Inspired Research**

An Initiative of

Department of Science and Technology, Government of India **18 to 22 December 2017**

This is to certify that
of participated as **Student Mentor**
in the **INSPIRE INTERNSHIP PROGRAMME 2015**, held at Miranda House, University of Delhi.

Dr. Pratibha Jolly
PI, DS Kothari Centre & Principal, Miranda House

INSPIRE Internship Programme 2017

Program Schedule

18 to 22 July 2017

Motivational Talk 1

Artificial Intelligence: Is it time for Dr Computer?

Dr. Anurag Agrawal
Director, CSIR-IGIB, Delhi

Motivational Talk 2

Large scale visual reconstruction and application to autonomous driving

Professor Subhashis Banerjee
Department of Computer Science, IIT Delhi, New Delhi

Motivational Talk 3

Connecting Sciences through genomics

Dr. Mitali Mukerji
Senior Principal Scientist, CSIR-IGIB, Delhi

Motivational Talk 4

Ultra accurate atomic clocks - keeping correct time for a billion years

Dr. Amitava Sen Gupta
Distinguished Research Professor, The NorthCap University, Gurgaon

Motivational Talk 5

Mind, machines and a Meaningful Dialogue

Dr. Anshu Bhardwaj
Scientist, CSIR-Institute of Microbial Technology, Chandigarh

Motivational Talk 6

A Different Perspective on Clean Energy - Water to the rescue!

Dr. Deepa Khushalani
Associate Professor, Department of Chemical sciences, TIFR, Mumbai

Motivational Talk 7

Career in science: A road map to success and happiness

Professor Yogendra Singh
Department of Zoology, University of Delhi, Delhi

Motivational Talk 8

Approaches to New Drug Discovery-Bugs to Superbugs and Antibiotics to Protein Antibiotics- A fight for the survival

Professor T. P. Singh
INSA Senior Scientist, AIIMS New Delhi

Hands-on Workshops:

1. Chemistry: The Green Pathway
2. Chemistry: Colors of Gold and Silver
3. DNA and Enzymes: Tiny but Mighty Players
4. DNA: Close Encounter
5. The Cell: Life's Playground
6. Designing Life: Small Experiments
7. The World of Molecules: Playing with Structures
8. Physics: The World in Motion
9. Physics: Sense, Measure and Control the World
10. Robotics: Impacting Life
11. Going Green: Science for a Sustainable Future
12. Science on the Move: Amusement Park Physics
13. Simulations and Video Analysis: The Modelling Game
14. Remote Sensing: Map Your Environment
15. Forensics: To Catch a Thief

Stage Science Show

Fascinating Physics

Education Outreach Team, National Science Centre, Delhi













DR. ANURAG AGRAWAL



Dr. Anurag Agrawal took charge as director of CSIR Institute of Genomics & Integrative Biology (IGIB) on 25 October 2017. He graduated in medicine from the All India Institute of Medical Sciences in 1994, followed by specialization in Internal Medicine, Pulmonary Disease, and Critical Care from Baylor College of Medicine, Houston, USA (2003) and a PhD in physiology from Delhi University. After serving as a faculty member of the Department of Medicine at Baylor, he joined IGIB in 2007, where he established the Centre of Excellence for Translational Research in Asthma & Lung disease (TRiAL) and the CSIR program for Effective Application of Community Health efforts through new age Information Technology (EACH-IT).

Dr. Anurag Agrawal's research activities include use of experimental and computational model-systems to study disease, especially asthma. Dr Agrawal believes health data analytics, with artificial intelligence applications, to be the new frontier of medicine and is actively engaged in promoting the confluence of medicine and informatics. His lab at IGIB straddles the divide between clinical and basic sciences in accordance with his belief that a continuing conversation between both sides is the key to rapid progress in respiratory health. The group works at the level of populations, individuals, primary cells and model systems.

Dr. Anurag Agrawal has more than 100 scientific publications, mostly original research findings communicated in high-impact journals. He has been recognized internationally, as an alumnus of Kavli Frontiers of Science program of the US National Academy of Sciences. At the national level, he is the recipient of the Shanti Swaroop Bhatnagar Award (Medical Sciences, 2014), National Bioscience Award (2015), Wellcome Trust DBT India Alliance Senior Fellowship (2015), Lady Tata Young Researcher Award (2010) and the Swarnjayanti Fellowship of the Department of Science and Technology (2010).

Dr. Agrawal is a Member and Fellow of numerous academic societies and serves on advisory bodies at Public Health Foundation of India, Lady Tata Memorial Trust, Centre for Cellular & Molecular Biology, Centre for Brain Research, and Indraprastha Institute of Information Technology, amongst others, as well as an adviser for startup companies and healthcare organizations.

PROFESSOR SUBHASHIS BANERJEE



Professor Subhashis Banerjee is a Professor at the Department of Computer Science and Engineering, Indian Institute of Technology, New Delhi. His field of specialization is Computer Vision, Pattern Recognition, Image Based Rendering and Real-time Embedded Systems. Prof. Banerjee completed his BE in Electrical Engineering from Jadavpur University. He went on to do his ME in Electrical Engineering and PhD on Stochastic Relaxation Paradigms for Computational Vision from the Indian Institute of Science, Bangalore.

Prof. Banerjee joined the Indian Institute of Technology, New Delhi as a Lecturer in the Department of Computer Science and Engineering in 1989. He received the Young Scientist Award of the Department of Atomic Energy in 1994. He has occupied important professorial Chairs such as the Microsoft Chair Professorship, the Naren Gupta Chair Professorship and the Ministry of Urban Development Chair Professorship. Prof. Banerjee received the IIT Delhi Teaching Excellence Award in 2011.

Professor Banerjee is one of the Coordinators of AIIMS-IITD Centre of Excellence for Neuro-engineering. He has two ongoing collaborative projects (as Co-PI) with Department of Neurosurgery, AIIMS. His other ongoing projects are: Creation of central computing infrastructure for universities and Research group on computer graphics and vision, Indo-German Max Planck Centre for Computer Science. Professor Banerjee has supervised and continues to supervise a number of PhD students. He has numerous publications including books and research papers in journals of national and international repute. He is also on the Editorial Board of several reputed journals of Computer Science. Prof. Banerjee writes for newspapers too. Several articles of his have appeared in the Indian Express. His commentaries on the security of Aadhar have attracted attention.

Professor Subhashis Banerjee is a Mentor and Member of Board of Directors of Kritikal Solutions Private Limited, a TBIU start-up company of IIT Delhi. He helped Kritikal Solutions Pvt. Ltd. develop two successful products - Vehicle Underside Scanner (deployed at the Rashtrapati Bhavan, Hyderabad airport and over 30 other installations) and Automatic License Plate Reader (to be deployed at several toll plazas across the country and possibly by the Delhi Traffic Department).

DR. MITALI MUKERJI



Dr Mitali Mukerji, PhD is a Senior Principal Scientist at the Institute of Genomics and Integrative Biology (IGIB), Delhi. She works in the broad area of Genomics and Molecular Medicine. Dr. Mukerji obtained her B.Sc. from Allahabad University. She joined the Indian Agricultural Research Institute, New Delhi for her M.Sc. and was awarded Institute Gold Medal for Outstanding performance in 1991. She subsequently did her PhD in bacterial molecular genetics from the Indian Institute of Sciences, Bangalore.

She has been Convener of Indian Genome Variation Consortium which provided the first comprehensive genetic landscape of the Indian population from disease genomics perspective. Her group has also demonstrated how this basal data can be used for dissecting disease genes, identifying signatures of selection, tracing mutational histories and also for pharmacogenomics studies. Her group is also studying the role of Alu elements in evolution of novel regulatory networks through functional genomics approaches. Presently, she has concentrated her efforts at integrating genomics with principles of Ayurveda, an ancient system of predictive and personalized medicine and initiated a new field of Ayurgenomics. She has been recipient of a number of national awards, the CSIR Young Scientist's Award (2001), Young Woman Bioscientist Award, Indian National Science Congress 2004, DBT young woman scientist award (2008) and Shanti Swarup Bhatnagar Award (2010). She is the recipient of Shiv Nath Sharma Shodh Puraskar for research in Ayurveda 2012.

Dr. Mukerji is a Fellow of the Indian Academy of Sciences and has more than fifty five publications in reputed national and international journals. She has delivered invited lectures in numerous high profile international conferences. Dr. Mukerji is involved in the popularisation of Science and is invited for popular talks by many organisations. She also writes popular science articles for magazines such as Science Reporter.

Dr. Mitali Mukerji has supervised the research of twenty five PhD scholars, ten of whom are currently working under her.

DR. AMITAVA SEN GUPTA



Professor Amitava Sen Gupta, currently affiliated to the NorthCap University, Gurgaon as Professor, Department of Electrical, Electronics and Communication Engineering (EECE), superannuated from the National Physical Laboratory (NPL), New Delhi in March 2015 as its Acting Director, holding the position of Scientist-H/Outstanding Scientist. He also headed the Time and Frequency Standards Division at NPL. **Dr. Amitava Sen Gupta** received his M. Sc. and Ph.D. degrees in Physics from the University of Delhi, India, in 1974 and 1980, respectively. His Ph.D. work involved experimental and theoretical studies of travelling ionospheric disturbances using satellites. In 1979, he joined the Time Standards section of the National Physical Laboratory, New Delhi.

Dr. Sen Gupta is an expert in the areas of Radio and Atmospheric Physics; Electronics; Atomic Physics; and Time and Frequency Standards. With over 35 years of research experience, his major contributions include design and development of India's first and one of the world's most accurate primary atomic clocks, known as the 'Cesium Fountain' and the development of the prototype of a space qualified Rubidium Clock for ISRO. He has recently initiated research and development on single trapped Yb ion based optical frequency standards at NPL. He has also developed India's first satellite based standard time broadcasts using the domestic INSAT satellites. This work has led to the INSAT time broadcast service, which has been widely used in India. For this work he has spent time extensively in the National Institute of Standards and Technology (NIST), USA and Physikalisch Technische Bundesanstalt (PTB), Germany.

Prof. Sen Gupta was a member of the first and second Indian Antarctic Expeditions in 1981-82, where he performed experiments related to upper atmospheric radio propagation and Ozone studies. In 1988-89, he was selected to lead the 100-member team of the Eighth Indian Antarctic Expedition. He and his team members set up the permanent Indian Antarctic Station *Maitri*.

Prof. Sen Gupta is a Fellow of the National Academy of Sciences, India (NASI), Fellow of the Institution of Electronic and Telecom Engineers (IETE), Fellow of the Metrology Society of India (MSI) and a Senior Member of the IEEE, USA. He received the O. P. Bhasin Foundation Award for Science and Technology (2002) for outstanding contributions in the field of Electronics and Information Technology. Presently, Prof. Sen Gupta is the President of the MSI and is the Editor-in chief of MAPAN - Journal of Metrology Society of India.

DR. ANSHU BHARDWAJ



Dr. Anshu Bhardwaj is Scientist, CSIR-Institute of Microbial Technology. She is also Assistant Professor, Academy of Scientific and Innovative Research (AcSIR) and Adjunct Professor, Public Health Foundation of India.

Anshu Bhardwaj obtained her PhD in Life Sciences (2008) from Centre for Cellular and Molecular Biology (CCMB), Hyderabad. The focus of her PhD thesis was on prioritizing Single Nucleotide Polymorphism (SNPs) in disease association studies to identify potential biomarkers.

As a lead PI in the Open Source Drug Discovery project at CCMB, She conceived, designed and implemented crowdsourcing as a tool to tackle challenging scientific problems (*Connect to Decode* project), which is considered a futuristic approach to drive biomedical big data projects. Over years, Dr. Bhardwaj has published several prediction methods, databases and ontology based barcoding methods for genome variation data towards better understanding of genotype-phenotype correlations in addition to state-of-the-art interactome and reactome for *Mycobacterium tuberculosis*. She served as an Associate Scientific Adviser to Science Translational Medicine and is on the Editorial board of *Frontiers in Systems Biology*. She also writes popular science articles.

Dr. Bhardwaj was selected as one of the Young Innovators in India by United National Development Program (UNDP) and for International Visitor Leadership Program by US State Department. She was also awarded the prestigious Newton-Bhabha Fund from the British Council and the Royal Society of Chemistry, UK. More recently she has been awarded a long-term CRI fellowship (Euro 120,000) by INSERM, the National Institute of Health and Medical Research of France, to pursue her ideas on addressing antimicrobial resistance.

In April 2016, Dr. Anshu Bhardwaj moved to CSIR-Institute of Microbial Technology, Chandigarh, India. Her current research focus is: to develop understanding of the infectious and rare disease biology with a systems-based approach for identifying potential therapeutic interventions and diagnostic approaches.

DR. DEEPA KHUSHALANI



Dr. Deepa Khushalani is currently Associate Professor, Department of Chemical Sciences Tata Institute of Fundamental Research (TIFR), Mumbai. Before joining TIFR in 2004, Dr. Khushalani was a Lecturer in Inorganic Chemistry at the University of Kent, UK. Dr. Deepa Khushalani did her B.Sc. (Chemistry) at the University of British Columbia, Canada. Subsequently, she completed her PhD under Prof. G.A. Ozin at the University of Toronto, Canada. She has been Postdoctoral Fellow at the University of Toronto and the University of Bristol, UK.

Dr. Khushalani heads the Materials Science Research Group at the Department of Chemical Sciences, TIFR. The chief aim of the research in her lab is to “augment the current understanding of the concepts in supramolecular templating of inorganic materials for formation of nanostructures.” Dr. Khushalani is on the Editorial Board of Scientific Reports, NATURE Publishing Group.

Dr. Deepa Khushalani has published and presented numerous papers on Advanced Materials, Smart Materials, Nanoscience and Technology, Green and Sustainable Chemistry, Sustainable Energy Solutions etc. Dr. Khushalani was selected a Fellow of the Royal Society of Chemistry in 2015. She received Young Career Award in Nanoscience and Technology 2016 from Department of Science and Technology (DST) Nanomission. The entire work of the Materials Science Research group was recognised by the award of a Bronze Medal by the Chemical Research Society of India (CRSI).

In addition to research at the frontiers, Dr. Khushalani is involved in science outreach activities and delivers talks for school and college students on Careers in Chemistry, Sustainable Energy, Nanomaterials and Nanotechnology etc. She has also been a Resource Person at Refresher Courses for school and college teachers.

PROFESSOR YOGENDRA SINGH



Professor Yogendra Singh is currently Professor, Department of Zoology, University of Delhi. His area of specialization is Bacterial Pathogenesis, Bacterial Protein Toxins and Signal Transduction in Bacteria. Professor Singh's specific focus is on anthrax and tuberculosis. Professor Yogendra Singh obtained his B.Sc. from Gorakhpur University with Zoology, Botany and Chemistry and went on to do his M.Sc. Biochemistry from the G.B. Pant University of Agriculture and Technology. Subsequently he completed his PhD in Medical Biochemistry at the Vallabhbhai Patel Chest Institute, Delhi.

Prior to joining the Department of Zoology, Prof. Singh was a Senior Scientist at the CSIR-Institute of Genomics and Integrative Biology, Delhi. He has been Visiting Fellow and Research Associate at the National Institutes of Health, USA and US Army Medical Research Institute. Prominent among his numerous awards and honours are Prof Appaji Rao Best Mentor Award of IIScAA (2017); J.C. Bose National Fellow (2015); Moselio Schaechter Distinguished Service Award of American Society for Microbiology (2014); Goyal Prize in Life Sciences in 2002; All India Biotech Association Award (For the year 2001-2002) and Rockefeller Career Development Award (1994).

Prof. Yogendra Singh is a Fellow of several distinguished academic bodies including Indian National Science Academy, Association of Microbiologists of India, Indian Academy of Sciences and National Academy of Sciences, India. He has served on the Editorial Board of prominent national and international publications. He has also been a Member of several Expert Committees constituted by the Government of India, the University of Delhi and Jawaharlal Nehru University.

Prof. Singh is a Member of Advisory and Monitoring Committee for New Millennium Indian Technology Leadership Initiative (NMITLI) project entitled *Development of a diagnostic system for affordable, point of need testing to manage HIV and TB*. He has also been Adviser to Department of Biotechnology (DBT)-sponsored Star College Project of Ramjas College and Daulat Ram College, University of Delhi.

PROFESSOR TEJ PAL SINGH



Prof. Tej Pal Singh is currently Distinguished Professor and INSA Senior Scientist working in the Department of Biophysics at All India Institute of Medical Sciences (AIIMS), New Delhi. After completing his M.Sc. in Physics from Allahabad University with specialisation in Crystallography, Prof. Singh did his Ph.D. in Drug Design at the Indian Institute of Science, Bangalore working on the crystal structure determinations and design of anti-inflammatory analgesics for new drug discovery. He was awarded D.Sc. in 2010. Prof. Singh is internationally known for his work on Rational Structure-based Drug Design, Protein Structure Biology and X-ray Crystallography.

Prof. Singh is currently the President of the Biotech Research Society of India and the Bioinformatics and Drug Discovery Society. He has also been President of Indian Biophysical Society and the Indian Crystallographic Association.

Prof. Singh is a Fellow of many distinguished academic bodies including the Third World Academy of Sciences, Indian National Science Academy, National Academy of Sciences, Indian Academy of Sciences, Alexander von Humboldt Foundation and Biotech Research Society of India. He has won numerous awards and accolades, prominent among them being Professor D.M. Bose Memorial Award of the Bose Institute, Kolkata (2013); Thathachari Memorial Science Award for Science and Technology (2012); the Jawaharlal Nehru Birth Centenary Lecture Award of INSA (2011); Annual Award of the Instrumentation Society of India (2011); Doctor of Science conferred by Karnataka State Open University, Mysore (2010); Distinguished Biotechnology Research Professor (DBT) (2009); Goyal Prize for Life Sciences (2007); G.N. Ramachandran Gold Medal for excellence in Science and Technology (CSIR) (2006); Distinguished Biotechnologist (DBT), 2006; Professor G.N. Ramachandran 60th Birthday Commemoration INSA Medal-2006; JC Bose Memorial Award (2005); Alexander von Humboldt Fellow (1977); Canadian Development Agency Award (1999) and many others.

Professor Tej Pal Singh has been, and continues to be, Member, Editorial Board of several learned journals and has over four hundred research papers to his credit.



18 – 22 December 2017

ANNEXURE

ANNEXURE I: Overall Feedback about INSPIRE Internship Camp

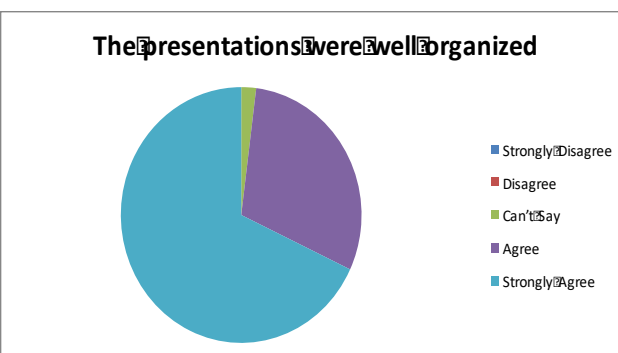
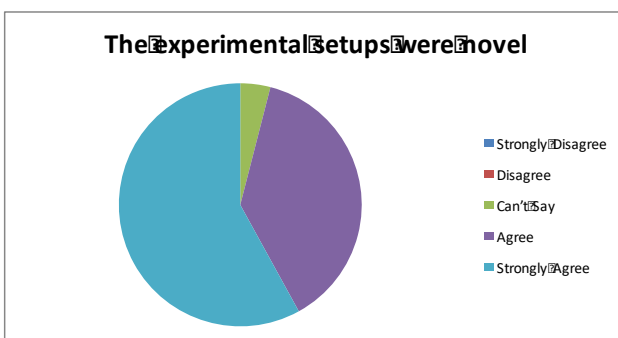
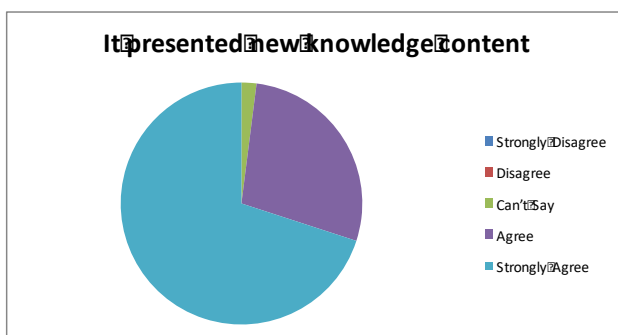
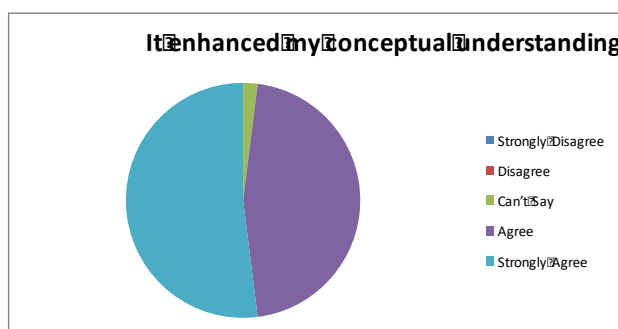
S.No.	Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
1.	I learnt several new things.	1	0	2	62	100
2.	I found the lectures interesting.	2	7	22	99	35
3.	This programme has motivated me to pursue science when I join college.	1	3	21	59	81
4.	I found the hands-on sessions very useful.	0	0	6	40	119
5.	I found the hands-on sessions very exciting.	1	2	8	38	116
6.	I got ample opportunity to ask questions.	3	5	25	77	55
7.	The speakers spoke at a level that we could understand even when they presented advanced topics.	0	7	26	85	47
8.	I like the demonstrations presented.	1	2	10	80	72
9.	I feel motivated to improve my own understanding of science.	0	2	7	53	103
10.	I enjoy working on projects and the programme has given me ideas on what to do.	1	1	10	62	91
11.	The hands-on sessions had no relevance to schools science and were a waste of time.	73	52	23	7	10
12.	I have made up my mind to pursue science as a career.	3	6	26	50	77
13.	I think the working cooperatively with fellow students is fun and enhances my understanding of science.	1	1	9	72	80
14.	The programme has challenged me to think.	0	2	10	80	72
15.	I understand now that learning science with innovative strategies can help me to understand concepts better.	0	1	9	61	92
16.	I would like to start using computer-based tools much more than I have been doing so far.	0	9	27	67	59

17.	The eventual success of this programme will depend on the level of my own motivation.	2	3	17	68	72
18.	I learnt several new concepts.	0	0	5	67	91
19.	I asked questions because of chocolates.	56	46	24	10	27
20.	I was given an opportunity to air my opinions.	3	6	16	82	56
21.	The organization of the workshop was good.	0	2	7	58	93
22.	The refreshments and meal were appropriate.	7	13	27	68	48
23.	The resource team was very helpful.	0	1	8	47	107
24.	I enjoyed getting to know students of other schools.	9	9	34	54	54
25.	I would like to participate in future INSPIRE Programmes at D S Kothari Centre	5	0	8	29	121

ANNEXURE II: *Feedback received from the workshops*

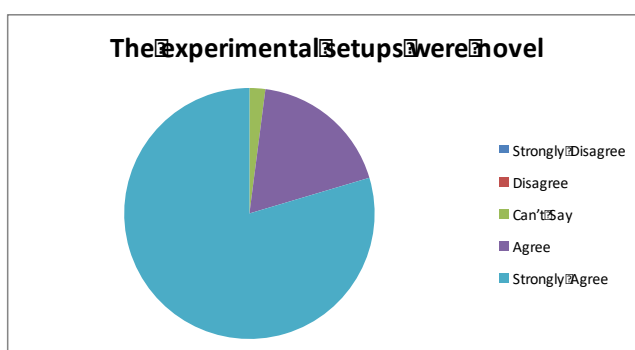
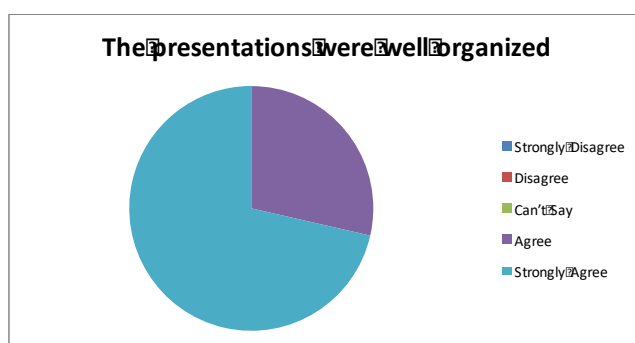
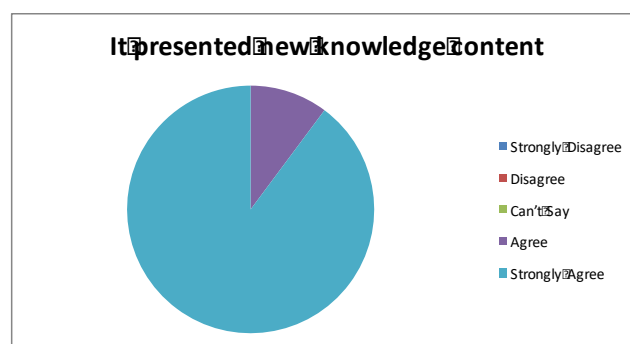
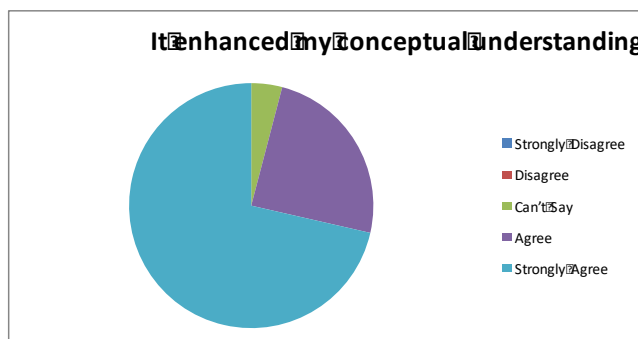
Chemistry: The Green Pathway

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	1	23	26
It presented new knowledge content	0	0	1	14	35
The presentations were well organized	0	0	1	15	34
The experimental setups were novel	0	0	2	19	29



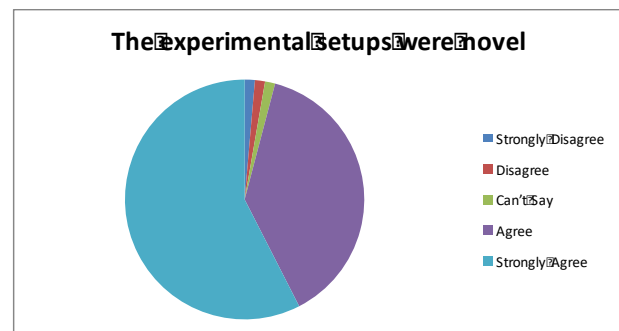
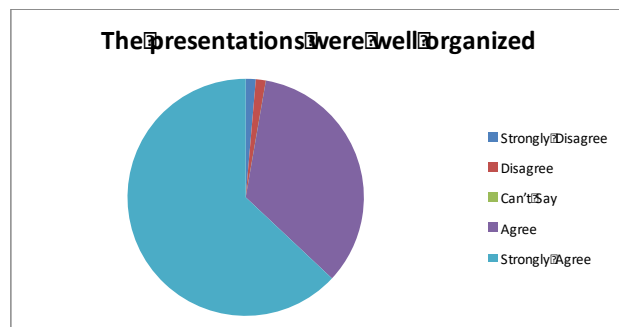
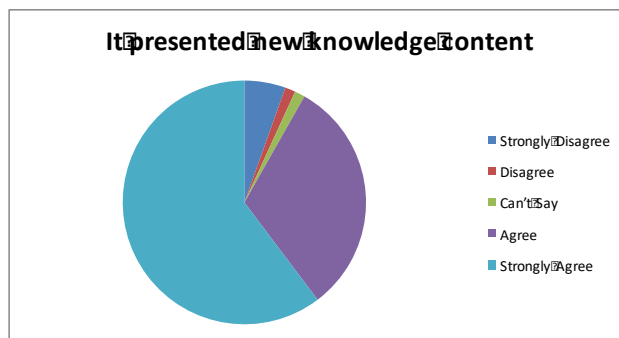
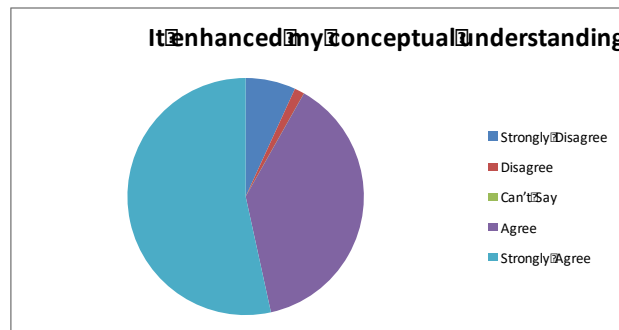
Chemistry: Colours of Gold and Silver

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	2	12	35
It presented new knowledge content	0	0	0	5	44
The presentations were well organized	0	0	0	14	35
The experimental setups were novel	0	0	1	9	39



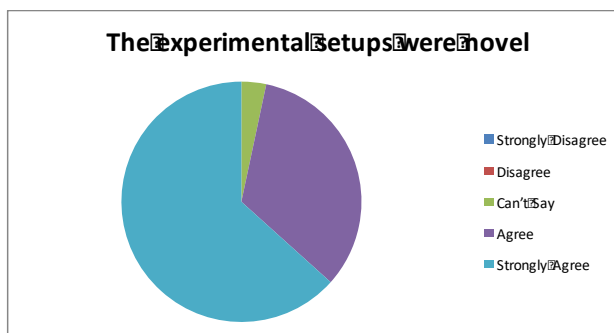
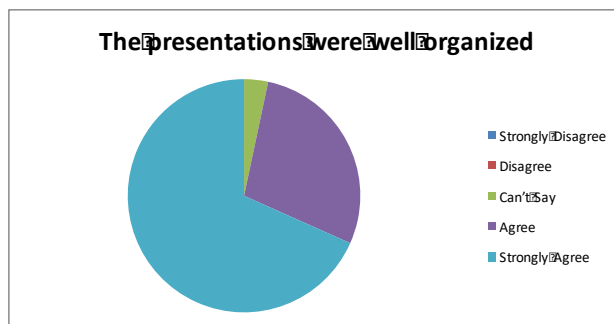
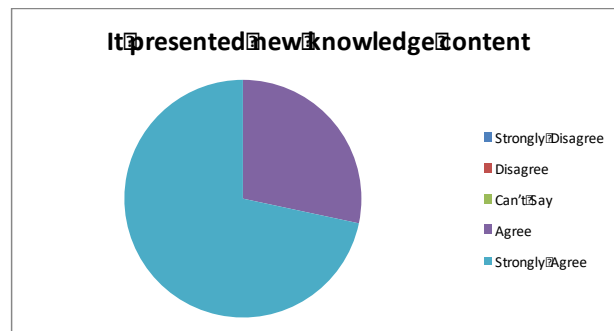
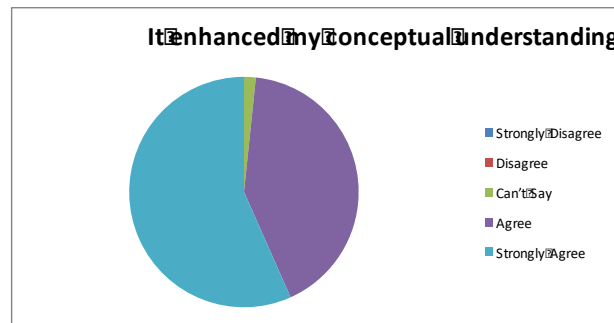
DNA and Enzymes: Tiny but Mighty Players

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	5	1	0	28	39
It presented new knowledge content	4	1	1	23	44
The presentations were well organized	1	1	0	25	46
The experimental setups were novel	1	1	1	28	42



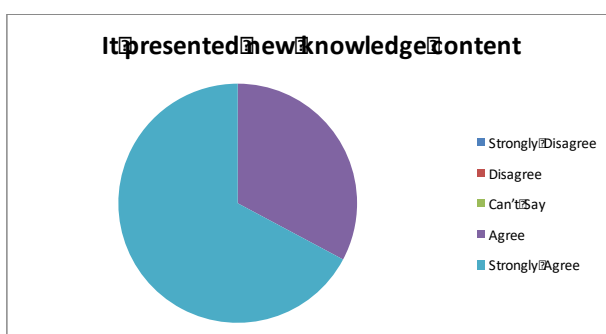
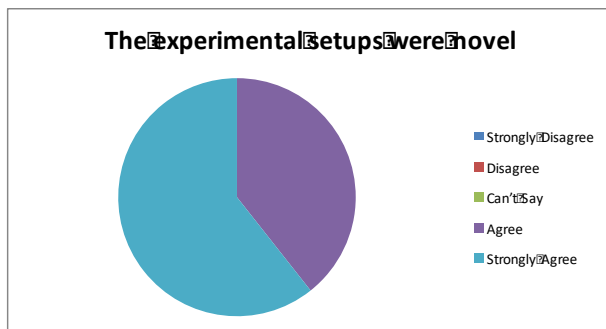
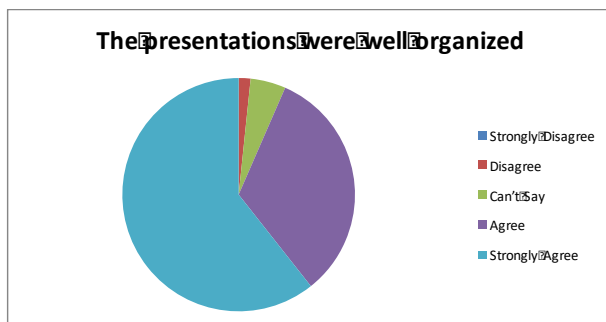
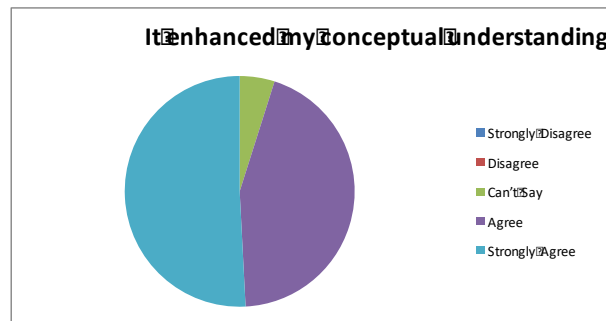
DNA: Close Encounters

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	1	25	34
It presented new knowledge content	0	0	0	17	43
The presentations were well organized	0	0	2	17	41
The experimental setups were novel	0	0	2	20	38



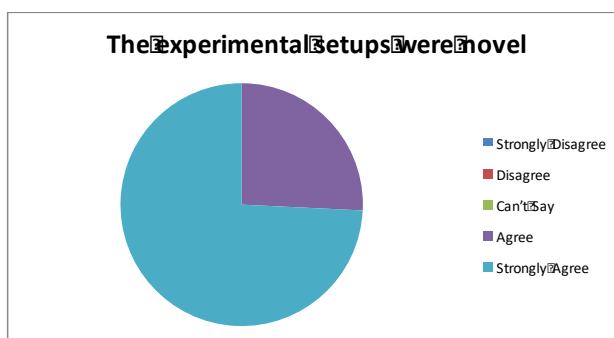
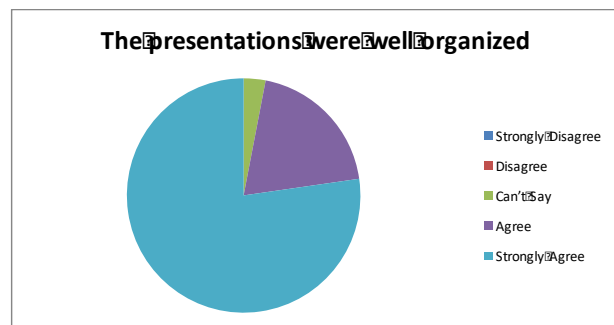
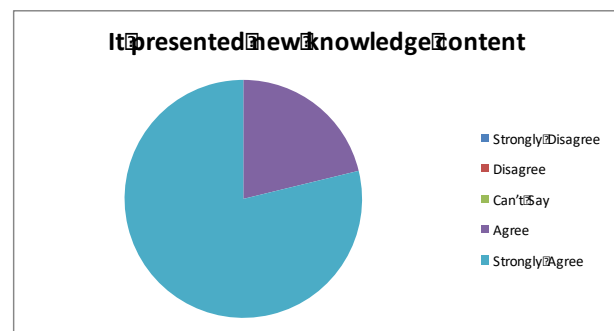
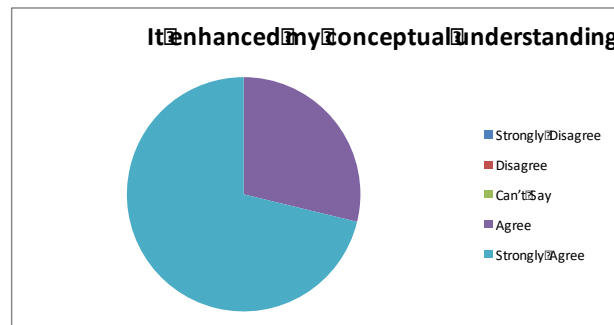
The Cell: Life's Playground

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	3	27	31
It presented new knowledge content	0	0	0	20	41
The presentations were well organized	0	1	3	20	37
The experimental setups were novel	0	0	0	24	37



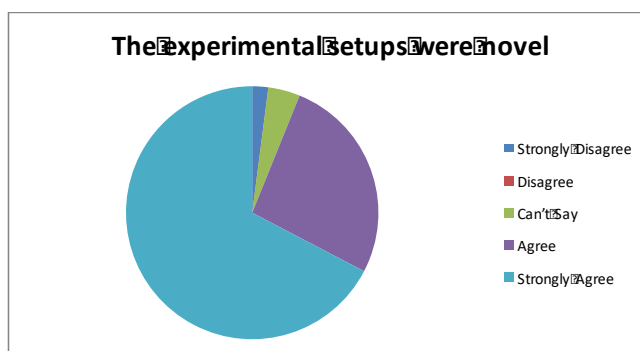
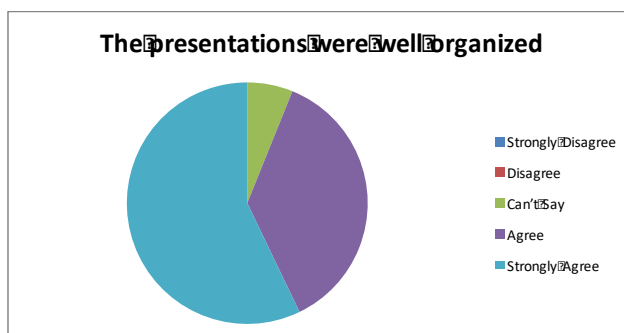
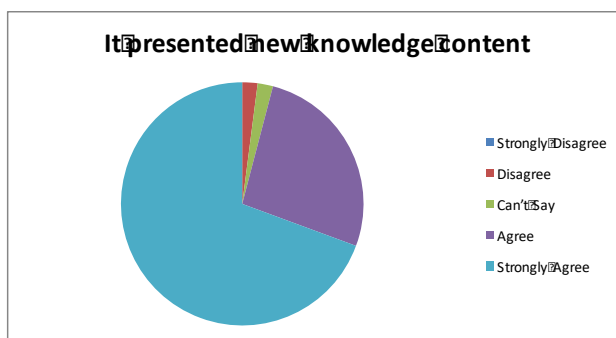
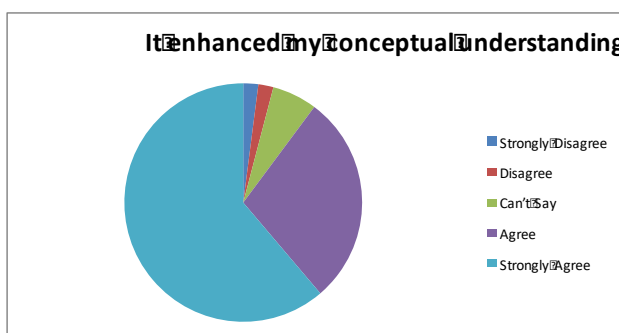
Designing Life: Small Experiments

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	0	19	47
It presented new knowledge content	0	0	0	14	52
The presentations were well organized	0	0	2	13	51
The experimental setups were novel	0	0	0	17	49



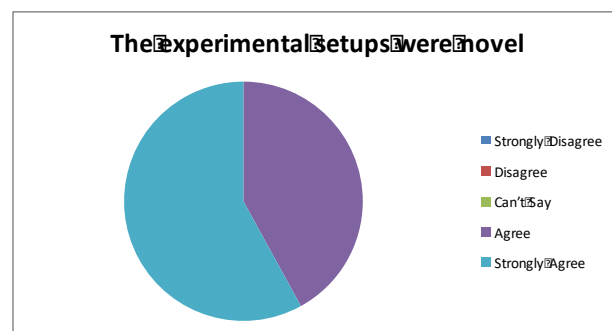
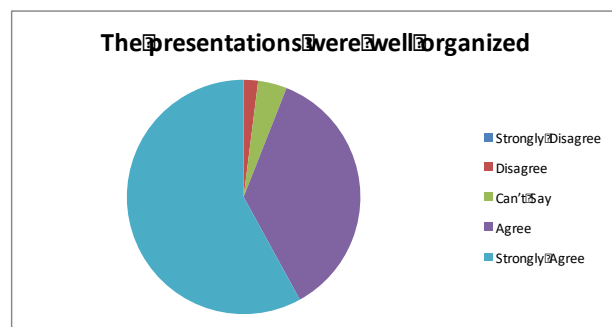
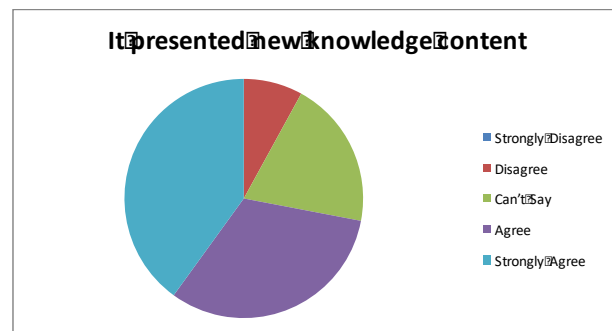
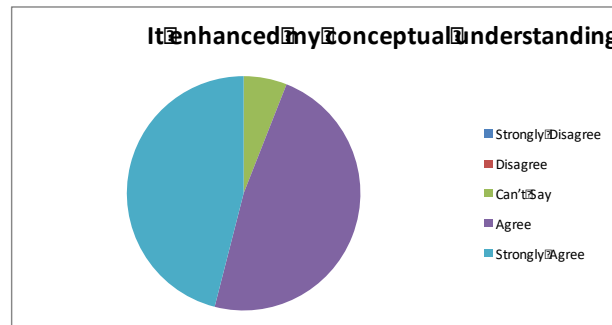
The World of Molecules: Playing with Structures

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	1	1	3	14	30
It presented new knowledge content	0	1	1	13	34
The presentations were well organized	0	0	3	18	28
The experimental setups were novel	1	0	2	13	33



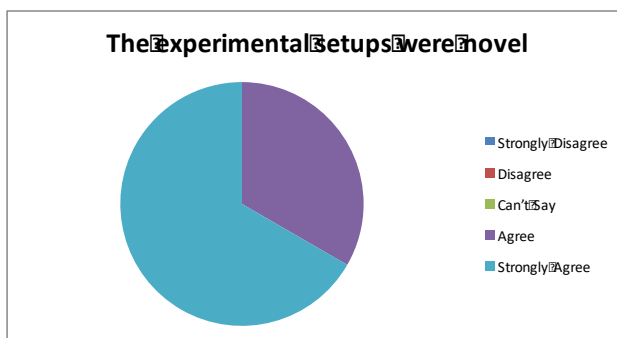
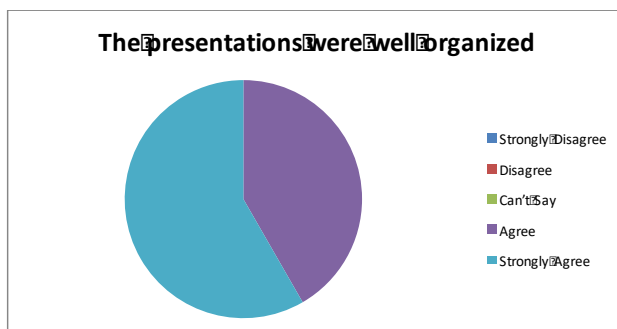
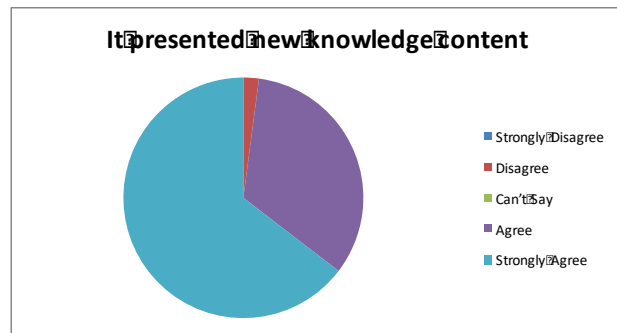
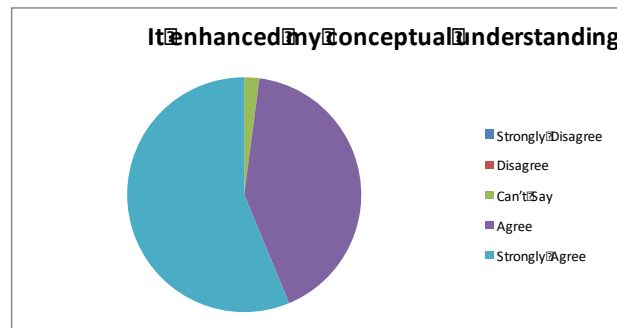
Physics: The World in Motion

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	3	24	23
It presented new knowledge content	0	4	10	16	20
The presentations were well organized	0	1	2	18	29
The experimental setups were novel	0	0	0	21	29



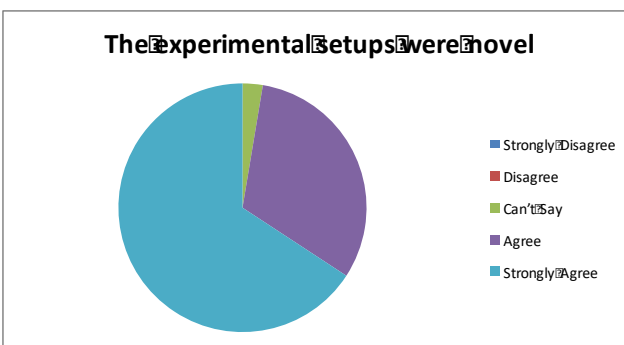
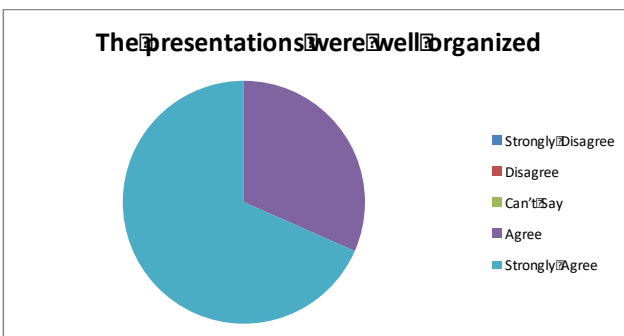
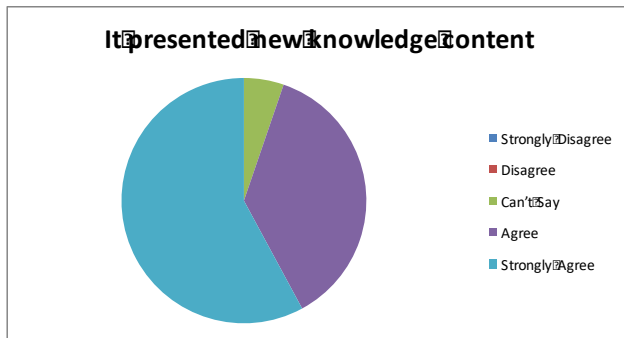
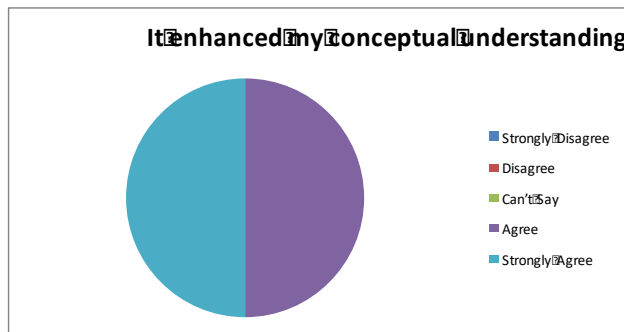
Physics: Sense, Measure and Control the World

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	1	20	27
It presented new knowledge content	0	1	0	16	31
The presentations were well organized	0	0	0	20	28
The experimental setups were novel	0	0	0	16	32



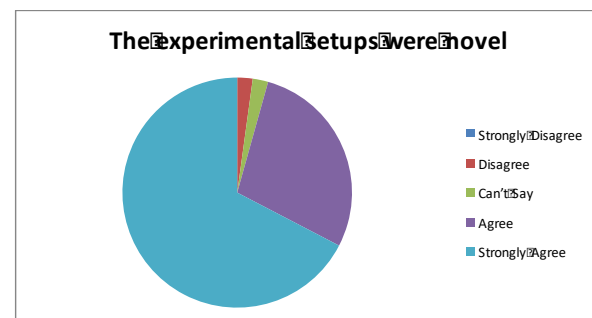
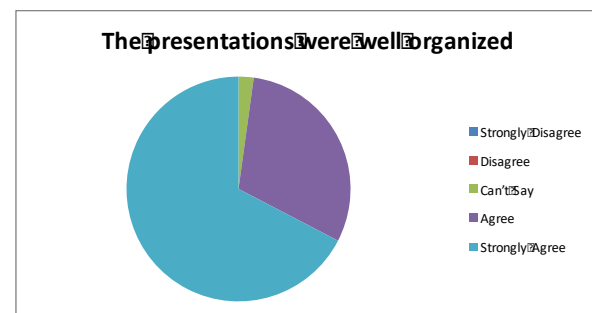
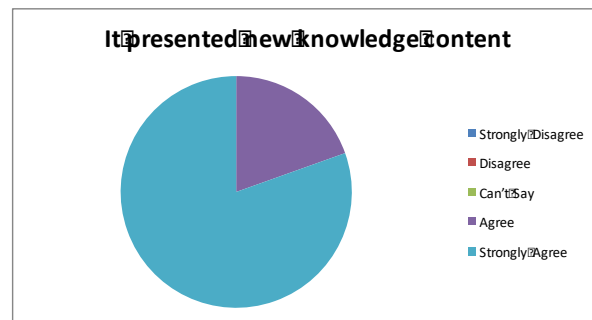
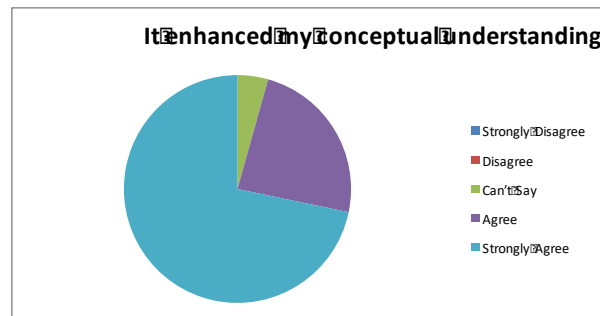
Amusement Park Physics

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	0	19	19
It presented new knowledge content	0	0	2	14	22
The presentations were well organized	0	0	0	12	26
The experimental setups were novel	0	0	1	12	25



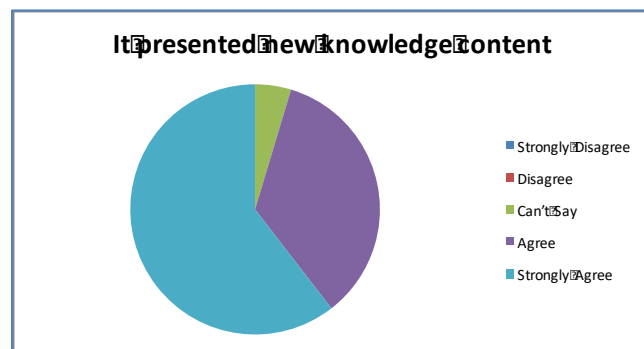
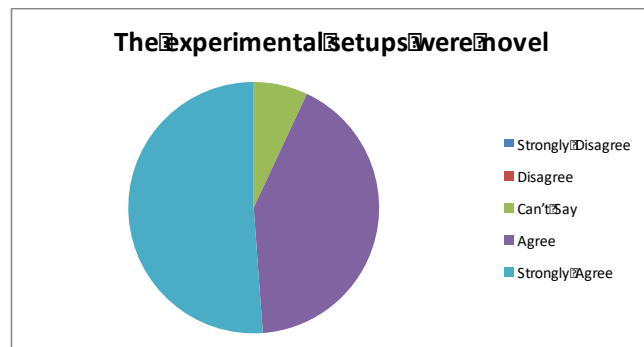
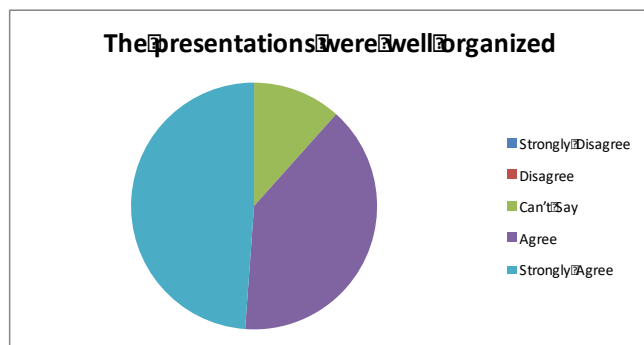
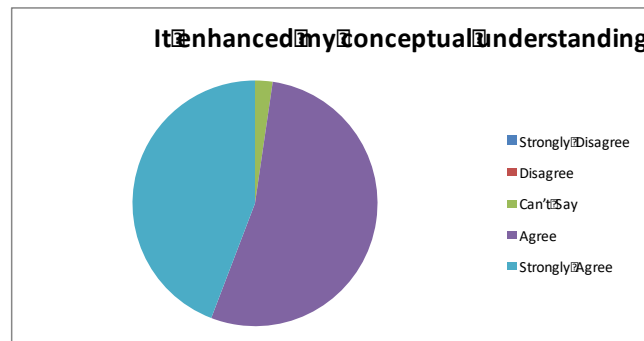
Robotics: Impacting Life

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	2	11	33
It presented new knowledge content	0	0	0	9	37
The presentations were well organized	0	0	1	14	31
The experimental setups were novel	0	1	1	13	31



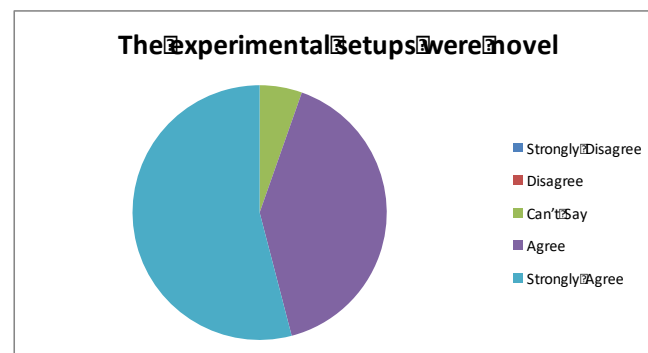
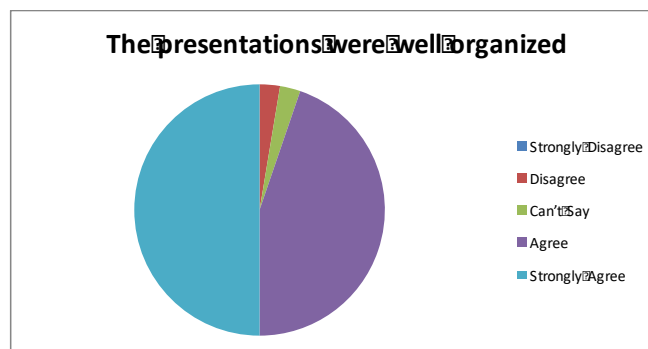
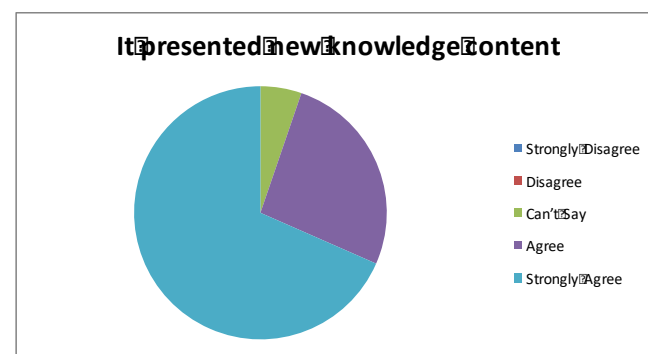
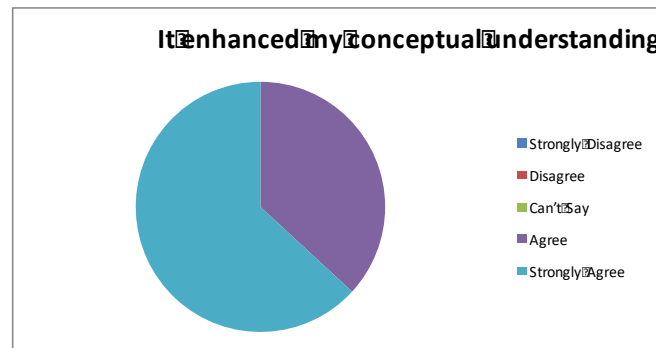
Going Green: Science for a Sustainable Future

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	1	23	19
It presented new knowledge content	0	0	2	15	26
The presentations were well organized	0	0	5	17	21
The experimental setups were novel	0	0	3	18	22



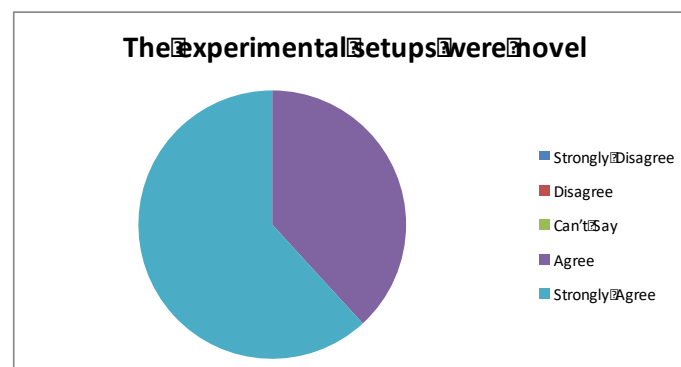
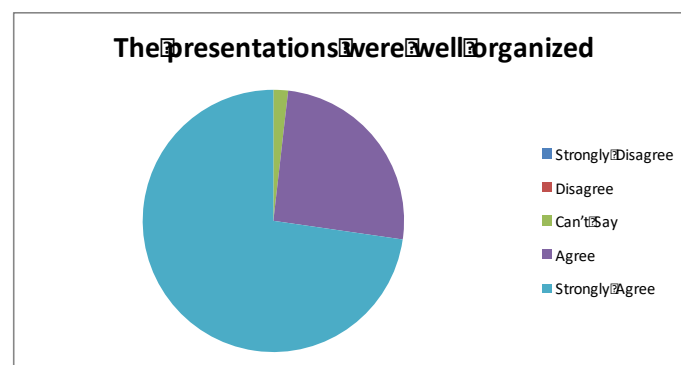
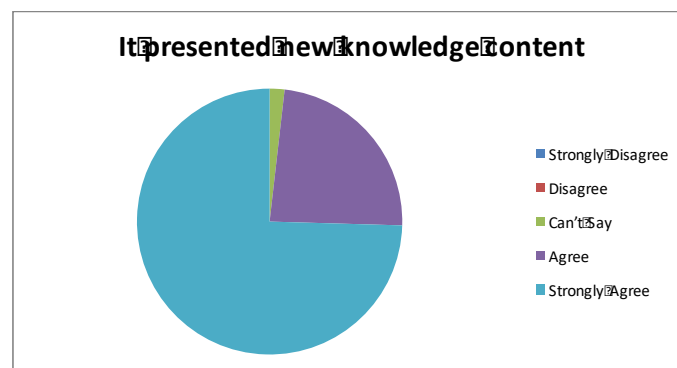
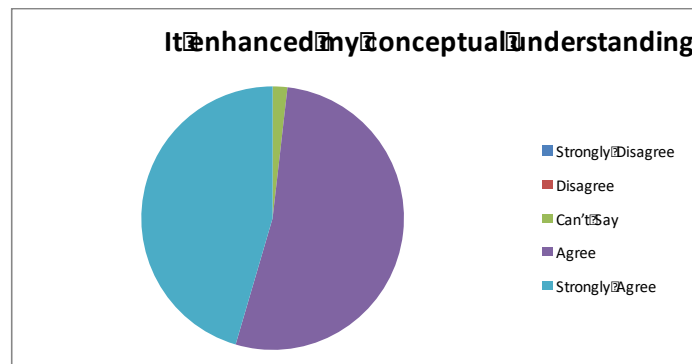
Simulation and Video Analysis: The Modeling Game

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	0	14	24
It presented new knowledge content	0	0	2	10	26
The presentations were well organized	0	1	1	17	19
The experimental setups were novel	0	0	2	15	20



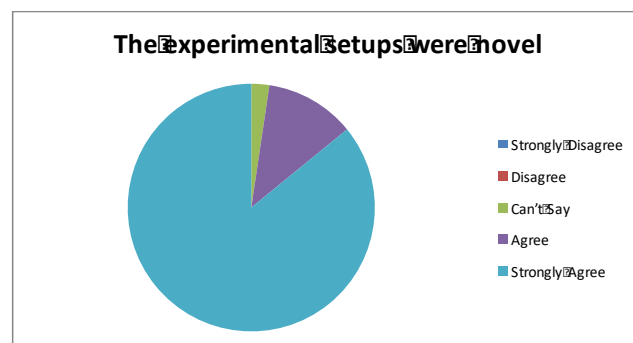
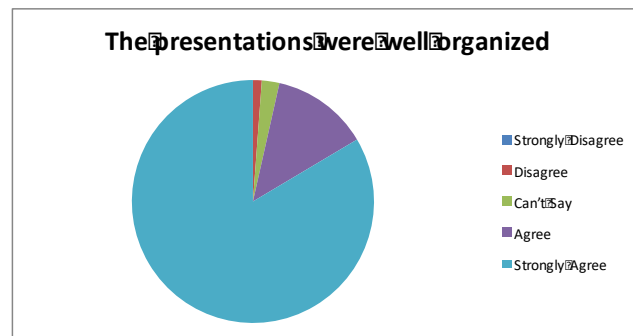
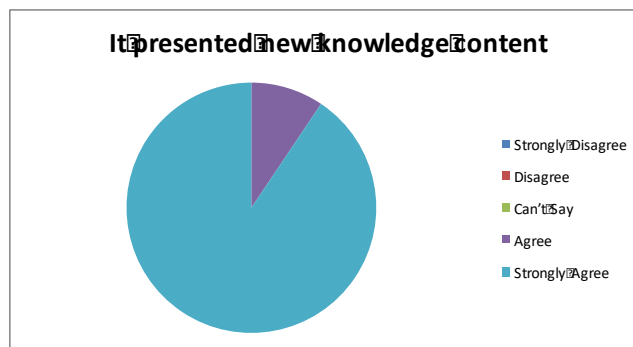
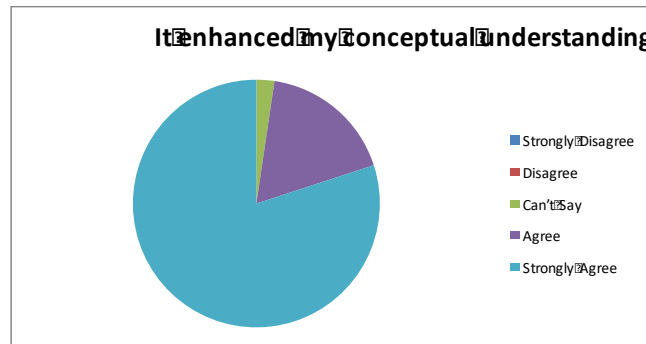
Remote Sensing: Map Your Environment

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	1	29	25
It presented new knowledge content	0	0	1	13	41
The presentations were well organized	0	0	1	14	40
The experimental setups were novel	0	0	0	21	34



Forensics: To Catch a Thief

Statement	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
It enhanced my conceptual understanding	0	0	2	15	68
It presented new knowledge content	0	0	0	8	77
The presentations were well organized	0	1	2	11	71
The experimental setups were novel	0	0	2	10	73



Participants' Comments about the Workshops

Chemistry: The Green Pathway

- It was good to learn Green Chemistry.
- Felt good learning part of it.
- Test part was amazing. Can't wait to come back!
- Excellent.
- It was nice and interesting.
- The presentations were very well organised. Our mentors were helpful and they showed us a nice way of thinking about chemistry. Thank you!

Forensics: To Catch a Thief

- Amazing!
- Extremely engaging. Fun hands on experience.
- The crime scene was very interesting and exciting.
- Excellent.
- Very Interesting.
- Awesome workshop.
- Thoroughly enjoyable.
- It was very interesting.
- Incredible, amazing.
- Very interesting and entertaining.
- Thoroughly enjoyed the new experience, it gave me insight as to what forensics actually is.
- Yeah! I enjoyed a lot. Thanks for giving the opportunity.
- Good job!
- This was the best activity I participated in out of the 5 days! Full of suspense and interest and not only enhanced my skills but was a very organised and nicely presented activity.
- This was the best of all.....!! Loved it.....
- We loved the crime solving part and the way we were taught to identify the fake notes was amazing. The finger printing session was also amazing.
- The forensics experiments were generally very interesting. We really enjoyed and learnt many things.
- It was an amazing experience. Just loved it.
- Oh my god!! It was super fun! All the mentors are so good and supporting. I have, after this, become interested in forensic sciences. I liked all the arrangements and the setups were also awesome.
- Wish we had more of such programmes. It was amazing.
- The time of the session must be enhanced. Also should be made available for class XII as well.

- Awesome!
- First workshop, which consisted of what was written in the manual. It was great, enjoyed a lot. Increased my knowledge to a great extent.
- It was a very engaging workshop. A unique experience. It most definitely piqued my interest towards the field of forensics.
- Excellent experience.
- Great experience, really interactive.
- A 5-star rating is less for this workshop. Enjoyed it to the fullest.
- I just loved this workshop. The best workshop ever! The teacher with us was wonderful. Student mentors were very helpful! I would love to come back again. Thanks a lot.

Chemistry: Colours of Gold and Silver

- It was an amazing experience.
- Best.
- Beauty of chemistry seen today.
- We did all the experiments in time. Well organised.
- Really very interesting. Well prepared.
- Excellent experiments. A lot better than school level chemistry.
- Interesting and informative.
- Informative workshop, well conducted.
- The workshops are the most interesting part. They should not be delayed.
- Well conducted workshop. All our doubts were answered by our mentors.
- It was a very informative and interesting session.
- Excellent representation. I really appreciate the efforts.
- The interns who were guiding us were ready to help us in every way and they also helped us in clearing doubts.
- The guides were very humble and supportive. The way of presenting was also very nice.
- It was very interesting we got to see various innovative and exciting experiments.
- I enjoyed the practical presentations as it allowed me to come face to face with new ideas of chemistry. I was able to grasp the concept as it was explained in detail. The explanation given is very helpful.
- It was a great experience. I especially enjoyed the purple vapour cloud experiment.
- It enhanced my knowledge.
- Awesome reactions!! The experiments were able to throw new light on chemistry.
- The experiments were very well presented by the undergraduate mentors. It gave me more knowledge about the various reactions.

The World of Molecules: Playing with Structures

- Interesting!
- Good workshop.
- The teachers/mentors have explained the topics very well. It enhanced my knowledge.
- Playing with structures on computers was quite interesting.
- It was very interesting and learnt many things out of it.
- It was quite impressive. Well, a good way of thinking about the world.
- Computational Chemistry is very interesting because we are able to see 3-D structures clearly.
- It's wonderful!
- It had been a very nice and exciting experience and everyone was extremely patient and helping.
- Such programmes and setups make learning science fun.
- It was an amazing workshop. Interesting and helped understand the things better.
- Great experience.

Going Green: Science for a Sustainable Future

- Good!
- Amazing knowledge about going green.
- I learnt many things from the workshop including how to be nature-friendly as a human.
- Very interactive.
- Enjoyed and had a great time.
- It was a new experience and it increased my knowledge. It was interactive.
- It was a pleasant experience.

Remote Sensing: Map your Environment

- Good experience.
- Amazing!
- Google Earth is not known otherwise it was good.
- The mentors were very helpful.
- All things were well organized. Presentations were very good. It was amazing. I liked it.
- It was quite informative.
- It was a great experience. Quite impressive.
- Presentation was superb. Sir and undergraduate students are polite. They all are good speakers also.
- It was so interesting. I am very happy to join this workshop.

- A session to be remembered.
- The teachers and volunteers have played a very nice role in this. This workshop enhanced my knowledge in new avenues. the knowledge was imparted very well by the teacher.
- The workshop presented new ideas and uses of a simple tool like GPS.
- A very nice experience while handling the device was enhanced due to good presentation.
- The interns are well experienced and ready to help to clear all types of concepts.
- It was a great experience.
- Had great fun while using the GPS devices.

Physics: The World in Motion

- The teachers have explained the experiments/ concepts very well. Our doubts were taken very seriously and also cleared nicely.
- Thanks for giving the opportunity.
- Excellent representation. I really appreciate the efforts. Cheers!
- A really well conducted and informative workshop. It enhanced my concepts.
- The experiments were very interesting and well displayed by the volunteers.
- It was a wonderful workshop. It really enhanced my concepts because for the first time I could see their real application. Student mentors were very helpful. I would like to come here again. Thank you.

Amusement Park Physics

- Very informative.
- Very informative, creative and well conducted.
- All the practicals and presentations were just amazing.
- Had a great time and enjoyed. All the mentors were extremely helping.

Robotics: Impacting life

- I totally loved the workshop!!! I especially liked the fact that the workshop was conducted by students and that we could freely interact with them. I learned the fundamentals of robotics in a very fun way. I wish there are more similar workshops in future.
- Amazing! All the presenters did very well.
- I really enjoyed the working of robot and I learned very much from it and it was very cool.
- The workshop was extremely interesting and informative.
- Informative workshop, will love to do it again.
- It was a very interactive and knowledgeable workshop.
- Wonderful workshop and a good experience. It enhanced my knowledge.
- Very well conducted, good coordination, great job done.

- Loved the debate!! It was fun to learn robotics and also interacting with college students.
- Workshop was amazing. It really enhanced my learning. Cheers!
- It was a very interactive and well-organised session.
- Liked the workshop.

Physics: Sense, Measure and Control the world.

- Innovative ideas.
- Amazing workshop.
- It was a very wonderful experience for me. I encountered new things and performed new experiments.
- Was fun and interesting to learn new concepts.
- Learnt new things.
- Nice one. Gives us a great idea about next year's physics.
- Helped to understand new concept, practical knowledge.
- Felt good being part of it. Gained knowledge about various sensors.
- The lab and all the instructors are good and ready to help us in clearing new concepts.
- I got to experience very new and interactive approach to the concepts we are taught.
- Amazing knowledge about devices which we can use to know about sound, light, etc.

Feedback from Undergraduate Mentors

1. The inspire project gave me a sense that I can actually handle students and explain to them the experiments. Also, the students who attended the session were attentive and sincere. The teachers really helped us to mentor the students well and their presentations were also comprehensive and coherent to let the students understand what the experiments and the project was all about. :)

- Akansha, Botany III Year

2. The Inspire workshop was a new experience altogether. As a student myself, it felt interesting to be able to teach younger students the topics we've been doing in class. I feel it would be even better if we were all given an outline of the workshops so we could plan ahead. Maybe it was my problem but I felt like information was coming late to us and we were sort of handling it last minute. But it is a really good initiative, it gives you something to learn from the school students at the same time puts you in a teacher's shoes which makes you realise a lot of things. Overall, I enjoyed the programme and its framework.

- Sakshee, Geography III Year

3. The Inspire Internship Programme was a great experience. It provided us a good exposure on interacting with high school students and awakening their interest in the experiments. It helped me to boost my confidence and I myself learned a lot during those days. Overall the 5 days as a mentor was an awesome experience to be remembered.

- Himanshi Soni, Chemistry III Year

4. Excellent 🍷 ☐ Superb 🍷 ☐ Great experience!

- Sushmita Ningthoujam, Botany III Year

Feedback from Coordinators

Coordinating the 5-day INSPIRE Internship Camp held in Miranda House from 18 to 22 December 2018 was a rewarding experience. The leading scientists invited for motivational talks readily entered into the spirit of the whole exercise by bringing difficult concepts down to the level of the audience consisting primarily of high school students. The students lapped up every word and at times surprised the eminent speakers by asking extremely intelligent and analytical questions. The interactive session after each motivational talk was long and fruitful and more often than not, had to be curtailed due to lack of time. A further element of fun was added by all the speakers, who rewarded good questions with chocolates tossed towards the questioners!

The carefully planned Science Workshops were equally fruitful. The high school students were not only willing but eager to learn new things. Their enthusiasm was infectious and the undergraduate mentors soon got deeply involved in the workshops. It was a learning experience for both sets of students since explaining fundamentals of science to the school students cleared up the concepts of the college students themselves. Undergraduate mentors were seen to be sharing their experiences and urging their classmates and friends to read up some more since some school students could ask really bothersome questions. Each workshop had a pre-lab quiz to gauge the level of the participating students. At the end of each session, a post-lab quiz was held to see how much the participants had learnt. The best effort was rewarded with a chocolate.

The accompanying teachers from the participating schools went around the college getting a brief glimpse into each of the workshops attended by students from their schools and pronounced themselves satisfied with the arrangements. Some teachers seemed eager to know more about the experiments performed and expressed a wish to attend similar teachers' workshops in the future, if possible. Overall, the high school students seemed really happy with the organization of the Internship Camp, as can be seen from the feedback received.