

Guru Nanak College, Sri Muktsar Sahib

Activities Report Performa

Session: 2022-23

Name of the Department: Physics

Sponsored by DBT, New Delhi (Under Star College Scheme)

1. Name of the Activity Organized: Project Demonstration Event

2. Date and Venue of the Activity: 30 May 2022, Guru Nanak College, Sri Muktsar Sahib

3. Name of the Resource Person, Designation and Address: Dr. Ritu Pasrija, Assistant Professor Physics, DAV College Abohar (Pb.).

4. Objective: To exhibit the scientific, problem solving and analytical skills of students. To enable students to have hands on experience of verifying scientific concepts. To enable students to understand structure and components of scrap (wright off) apparatus, to model problems, to use mobile applications like Phyphox to understand and apply concepts of Physics, to demonstrate fundamental concepts like compound pendulum, logic gates etc.

5. Number and Details of the Participants/ Beneficiaries:

Sr. No.	Title of the Project	Class	Roll No.	Name of student	Father's Name
1	Giant Wheel (Circular motion)	XII th	602	Arshdeep	Gurwinder Singh
			606	Jobanmeet	Gursahib Singh
2	Logic gate with LED and Sound	XII th	603	Nisha	Puran Ram
			604	Gurleen	Jagminder Singh
3	Robotic Crane	XII th	14	Chetram	Pappu Ram
			704	Lovekaran	Kikar Singh
			705	Khushdeep	Kanwarjit Singh
4	Robotic Machine	XII th	611	Jobanpreet	Sukhdev singh
			701	Harsimranpreet	Gurbaj Singh
			708	Hussanpreet	Gurdeep Singh
			711	Lovepreet	Gursewak singh
5	Swing (Periodic motion)	XII th	603	Nisha	Puran Ram
			604	Gurleen	Jagminder Singh
			703	Komalpreet Kaur	Ajaypal Singh
6	Theft Alarm	XII th	602	Arshdeep	Gurwinder Singh
			606	Jobanmeet	Gursahib Singh
7	3 D Printer object	XII th	704	Lovekaran	Kikar Singh

			710	Davinder	Atma Ram
8	Double pendulum and its Applications	B.Sc. I (N.M.)	5502	Simranjeet Kaur	Angrez Singh
			5515	Amisha	Ghansham Rai
			5516	Aarti	Bhagirath
			5526	Riya	Parveen Kumar
			5547	Tanu	Sandeep Kumar
9	Earthquake Alarm	B.Sc. I (N.M.)	5501	Anu Kaur	Charanjeet Singh
			5507	Navneet Kaur	Resham Singh
			5517	Lovepreet Kaur	Kulwant Singh
			5534	Sukhpreet Kaur	Buta Singh
10	Electromagnetic Induction model	B.Sc. I (N.M.)	5538	Komalpreet Kaur	Shivkaran Singh
			5539	Ramandeep Kaur	Sukhdev Singh
			5541	Palak	Sanjeev Kumar
			5542	Ramandeep Kaur	Jaswinder Singh
			5544	Manider Kaur	Balkar Singh
11	Free Energy device	B.Sc. I (N.M.)	5511	Prabhjot Kaur	Sudarshan Singh
			5522	Kulwinder Kaur	Paramjeet Singh
			5527	Suneha	Mithan Lal
			5532	Manjot Kaur	Gurmeet Singh
12	Solar Heater	B.Sc. I (N.M.)	5513	Deepka Rani	Surjeet Singh
			5514	Nimerveer Kaur	Jagdish Singh
			5518	Samanpreet Kaur	Surjeet Singh
			5520	Simranjeet Kaur	Jaskaran Singh
13	Solar Panel	B.Sc. I (N.M.)	5524	Sahil Kumar	Daljit Kumar
			5525	Jashanjeet Singh	Kamaljit Singh
			5530	Ranjeet Singh	Sukhjinder Singh
			5531	Karan Sharma	Vinod Kumar Sharma
			5537	Shubham Saini	Vikram Kumar
			5543	Yashdeep Singh	Roshan Singh
			5545	Sukhwinder Singh	Jaswant Singh
14	Steam engine	B.Sc. I (N.M.)	5506	Harman	Sham Lal
			5509	Pawanpreet Kaur	Sukhwinder Singh
			5510	Gurwinder Kaur	Karnail Singh
			5512	Rappu	Gurmeet Singh
15	3D Hologram	B.Sc. I (N.M.)	5503	Mamta Rani	Des Raj
			5504	Anmolpreet Kaur	Jaswinder Singh
			5521	Komalpreet Kaur	Kashmir Singh
			5535	Khushi	Surinder Kumar
			5538	Komalpreet Kaur	Shivkaran Singh
			5548	Neha	Dev Rattan
16	Determination of wavelength through spectrometer	B.Sc. II (N.M.)	5702	Arshdeep Kaur	Sawarnjeet Singh
			5703	Simranpreet Kaur	Guriqbal Singh
			5704	Jasmanpreet Kaur	Sawarnjit Singh
17	Hydraulic breaks and path of light in different medium	B.Sc. II (N.M.)	5708	Harveer Kaur	Jagsir Singh
			5714	Harsharan Kaur	Prem Singh
			5717	Lavleen Kaur	Jasmail Singh
			5746	Lovepreet Kaur	Angrej Singh
			5747	Harjot Kaur	Jaswinder Singh

18	Interactive Hologram	B.Sc. II (N.M.)	5701	Dimple	Hardeep Singh
			5705	Arpandeeep Kaur	Gurwinder Singh
			5709	Komal Rani	Ramesh Kumar
			5715	Navdeep Singh	Gurcharan Singh
			5743	Ramandeeep Kaur	Balwinder Singh
19	Laser light show	B.Sc. II (N.M.)	5726	Prabhjot Kaur	Malkeet Singh
			5727	Lovepreet Kaur	Jasveer Singh
			5728	Manveer Kaur	Chamkaur Singh
			5730	Jagpreet Kaur	Chamkaur Singh
20	Lifi	B.Sc. II (N.M.)	5720	Parul	Chetan Kohli
			5723	Shaffique	Rajesh Kumar
			5724	Shreya	Pawan Kumar
			5729	Komaldeep Kaur	Jaswinder Singh
			5733	Kirti Jindal	Vipan Kumar
21	Newton's prism	B.Sc. II (N.M.)	5710	Ankush	Mangat Ram
			5711	Muskan	Ramesh Sharma
			5712	Rupinder Kaur	Swarn Singh
			5713	Ajitpal Kaur	Ajaypal Singh
			5741	Lovejeet Kaur	Gurmail Singh
22	Optical box	B.Sc. II (N.M.)	5706	Anmolpreet Kaur	Kirpal Singh
			5716	Navneet Kaur	Balraj Singh
			5718	Prabhjot Kaur	Balveer Singh
			5719	Amandeep Kaur	Baldev Singh
23	Refractive index of kerosene oil	B.Sc. II (N.M.)	5725	Japandeeep Kaur	Raghib Singh
			5736	Nancy	Roshan Lal
			5737	Anu Bala	Lakhveer Singh
			5740	Kiranjeet Kaur	Jogan Ram
24	Refractive index of Mustard oil	B.Sc. II (N.M.)	5734	Akashdeep Singh	Jagdish Singh
			5738	Gagandeeep Singh	Sukhpal Singh
			5739	Vishavjot Singh Brar	Harvinder Singh Brar
			5742	Sukhpreet Singh	Gurnam Singh
25	Working of Projector	B.Sc. II (N.M.)	5707	Simranjeet Kaur	Avtar Singh
			5721	Jashandeeep Kaur	Nasib Singh
			5722	Navjot Kaur	Baldev Singh
			5732	Kirandeeep Kaur	Harnek Singh
			5748	Gagandeeep Singh	Balraj Singh
26	Acoustic Mapping of sounds of song, clapping of hands and stamping of feet	B.Sc. III (N.M.)	5940	Arshdeep Kaur	Amandeep Singh
27	Comparative Study of Chia seeds in HCl, NaOH & Water for absorption and pattern formation	B.Sc. III (N.M.)	5926	Mamta Rani	Kewal Krishan
			5927	Simran Kaur	Sahib Singh
			5930	Ruhani	Arvind Kumar
28	Designing of LED sequential controller	B.Sc. III (N.M.)	5932	Harmanjot Kaur	Jagjit Singh
			5936	Riya Mehta	Surender Kumar Mehta
			5937	Ramandeeep Kaur	Sardool Singh
29	Designing of Logic	B.Sc. III (N.M.)	5939	Jyoti Kumari	Gulab Chand

	Gate		5942	Seema Kaur	Makhan Singh
30	Designing of Magnetic Swing	B.Sc. III (N.M.)	5917	Mehak Aneja	Deepak Aneja
			5918	Fiza Gumber	Deepak Kumar
31	Designing of Projector using a Bulb	B.Sc. III (N.M.)	5905	Gagandeep Kaur	Lakhveer Singh
			5913	Muskan Chauhan	Surinder Kumar
			5914	Manpreet Kaur	Guranditta Singh
32	Li fi II : Application of Li fi in office	B.Sc. III (N.M.)	5906	Pawneet Kaur	Ranjeet Singh
			5907	Rajpreet Kaur	Balwinder Singh
			5908	Rajbeer Kaur	Harvinder Singh
33	Model of Atomic Force Microscope	B.Sc. III (N.M.)	5903	Gurleen Kaur	Sarbjit Singh
			5904	Jappreet Kaur	Kanwaljit Singh
			5916	Jaspinder Kaur	Harbans Singh
34	Study of Alkaline and Acidic Treatment of Rice Straw	B.Sc. III (N.M.)	5901	Manjot Kaur	Satpal Singh
			5915	Surjeet Kaur	Sher Singh
			5943	Sarbjjeet	Hans Raj
35	Study of application of DC Motor	B.Sc. III (N.M.)	5917	Mehak Aneja	Deepak Aneja
			5918	Fiza Gumber	Deepak Kumar
36	Study of Components and Functionality of Analog AC Ammeter	B.Sc. III (N.M.)	5935	Jashan Kumar	Raj Kumar
			5938	Harpreet Singh	Satnam Singh
37	Study of Components and Functionality of Analog AC voltmeter	B.Sc. III (N.M.)	5909	Komalpreet Kaur	Harkrishan Singh
			5910	Rizul	Surinder Kumar Kukar
			5934	Simranpreet Kaur	Tarsem Singh
38	Study of components of Reading Telescope	B.Sc. III (N.M.)	5928	Shruti	Surinder Kumar
			5929	Ruhani	Pawan Kumar
39	Study of illuminance of coloured surfaces, reflected sunlight and mobile light	B.Sc. III (N.M.)	5931	Veerpal Kaur	Rajwinder Singh
			5944	Shruti	Pawan Kumar
40	Study of Logic Gates	B.Sc. III (N.M.)	5911	Gagandeep Kaur	Gurmeet Singh
			5912	Manveer Kaur	Iqbal Singh
			5933	Diya Garg	Surinder Kumar Garg
41	Study of Multimeter	B.Sc. III (N.M.)	5923	Richa Rani	Niyamat Lal
			5924	Khushi	Pawan Kumar
			5925	Aashima	Pawan Kumar
42	Flip Flop	M.Sc. I (Physics)	10604	Priyanka	Ramesh Kumar
			10606	Rupali Batra	Narinder Kumar
			10607	Ramneek Kaur	Baljender Singh
43	Seven Segment Display	M.Sc. I (Physics)	10602	Gagandeep Kaur	Sukhveer Singh
			10603	Neha Rani	Jasveer Singh
			10605	Jatin	Rajinder Kumar

44	Band pass Filter	M.Sc. II (Physics)	10708	Gurjinder Kaur	Bhajan Singh
			10710	Manjeet Kaur	Raj Kumar
45	Band reject Filter	M.Sc. II (Physics)	10702	Ankush Dhuria	Sanjeev Dhuria
			10703	Seerat Gill	Narinder Singh
46	Constant current source	M.Sc. II (Physics)	10704	Mansi Arora	Sanjeev Arora
			10711	Sheetal	Rattan Lal
47	High pass Filter	M.Sc. II (Physics)	10706	Babita Rani	Pooran Chand
			10707	Gagandeep Kaur	Jaswinder Singh
			10709	Anku	Rajinder Kumar
48	Low pass Filter	M.Sc. II (Physics)	10701	Manvir Kaur Brar	Kulwinder Singh
			10705	Rupali Sharma	Vinod Kumar Sharma

6. Feedback by Students:

Project: Acid & Alkaline treatment of Rice straw.

We start our project on 3 March 2022 and end it at 29 May 2022. In period of this three months we learn many things about rice straw, its cell wall, its structure. Also we learn about chemicals that have been used in pretreatment of rice straw. Also we spend much time with our partners and teacher also. We also make number of memories. It is good time we spend together. We feel happy if we also work on this project further.

While making a **project seven segment display** following points which helped me:

- 1) Increase in interest.
- 2) Help to deal with daily life.
- 3) Scientific attitude increases.
- 4) I request our teachers for one project demonstration in each semester, which will increase our interest in dealing with the subject.
- 5) We construct all the projects with ourselves with the help and guidance of our teachers.

6) It increases our hands on training experience.

7) Confidence increases.

7. Video/You-tube Link: Nil

8. Outcome of the Activity: Project Demonstration Event is an event of the college where students showcase scientific skills. It is an event in which students work from weeks to months depending on the problem chosen. A total of 48 projects were made in which 158 students participated. The skills developed by students include:

- Problem solving skills
- Experimental skills
- Analytical skills
- Innovation

9. Attach Geo Tagged Photographs:





10. Members of the Organizing Committee: Dr. Prabhjeet Kaur, Ms. Rajveer Kaur, Ms. Gaganjot Kaur, Ms. Sandeep Kaur and Ms. Amandeep Kaur

11. Name of the Department Coordinator: Dr. Anita Rani

Dr. Anita Rani
DBT Program Coordinator

Dr. Tejinder Kaur Dhaliwal
Principal