Miranda House
UNIVERSITY OF DELHI

Department of Physics
Departmental Annual Report – 3A
2022-2023
Departmental Activities: Curriculum and Beyond

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A.1 Students undertaking project work/field work/internship as part of experiential learning component of coursework

A.2 Students undertaking project work/field work/internship (beyond the requirements of coursework)

A.2.1 Students pursuing project work under DSKC Summer Workshop,

A.2.2 Summer workshops/ projects completed successfully by students at other Institutions

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Academic Year: 2022 – 2023 (from 1.7.2022 to 30.6.2023)

Part A.1

Students undertaking project work/field work/internship as part of experiential learning component of coursework

Programme: UGCF 2022, Value Addition Course (VAC)
Semester: I
VAC Paper: Digital Empowerment
Paper Code: 6967000027
Faculty (Project Mentor): Dr. Nirmala Saini

S. No.	Name of the students	Roll No	Course	Project Title
1	Aishwarya S. Sekhar	2022/58;	B.Sc. (Hons) Physics	E-kranti
2	Reeta Pal	2022/903	B.Sc. (Hons) Physics	
3	Khushi	2022/514	B.Sc. (Hons) Physics	
4	Fida Fathima	2022/346	B.Sc. (Hons) Physics	
5	Sanya	2022/1488	B.A. (Hons) Political Science	DIGITAL Services in Health
6	Yashika Awana	2022/1318	B.A. (Hons) Economics	
7	Monika	2022/654	B.A. (Hons) Economics	
8	Gargi Gangan	2022/350	B.Sc. (Hons) Mathematics	
9	Fida B Usman	2022/347	B.A. (Hons) Economics	
10	Neha Maurya	2022/718	B.Sc. (Hons) Mathematics	Digital Services in Education
11	Himani	2022/400	B.Sc. (Hons) Mathematics	
12	Shalvi	2022/1043	B.Sc. (Hons) Mathematics	
13	Ramya	2022/890	B.Sc. (Hons) Mathematics	
14	Muskan Sigroha	2022/681	B.Sc. (Hons) Mathematics	
15	Ashna	2022/20	B.A. (Hons) Political Science	Cyber Security
16	Deepika	2022/280	B.A. (Hons) Political Science	
17	Sweety	2022/198	B.A. (Hons) Economics	
18	Mansi Kushwaha	2022/620	B.Sc. (Hons) Chemistry	Financial Inclusion
19	Anjali Kumari	2022/1361	B.Sc. (Hons) Chemistry	
20	Muskan	2022/666	B.Sc. (Hons) Chemistry	
21	Nisha Kumari	2022/743	B.Sc. (Hons) Chemistry	
22	Ann Maria Joseph	2022/148	B.Sc. (Hons) Chemistry	
23	Tejaswita	2022/1239	B.Sc. (Hons) Physics	E-learning
24	Priya Burdak	2022/851	B.Sc. (Hons) Physics	
25	Riya Yadav	2022/951	B.Sc. (Hons) Physics	
26	Bhuwanshu	2022/246	B.A. (Hons) English	Cyber Security
27	Garvita	2022/356	B.A. (Hons) English	
28	Mahima	2022/601	B.A. (Hons) English	

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S. No.	Name of the students	Roll No	Course	Project Title
29	Surbhi Deshwal	2022/1185	B.A. (Hons) Political Science	E-kranti
30	Kamini Singh	2022/472	B.A. (Hons) Political Science	
31	Swati Sarwa	2022/1194	B.A. (Hons) Political Science	
32	Pranjali	2022/824	B.A. Programme	
33	Riya Yadav	2022/950	B.A. (Hons) Geography	Spreading Digital awareness
34	Sakshi Yadav	2022/980	B.A. (Hons) Geography	
35	Mugdha Pareek	2022/658	B.A. (Hons) Geography	
36	Vartika Mohan	2022/1291	B.Sc. Physical Sciences with CS	Cyber Security
37	Khushi Upadhyay	2022/535	B.Sc. Physical Sciences with CS	
38	Sanjana Chimwal	2022/1005	B.Sc. Physical Sciences with CS	
39	Sheetal Yadav	2022/1053	B.Sc. Physical Sciences with CS	
40	Zenab	2022/1329	B.Sc. Physical Sciences with CS	
41	Divya Sristhi	2022/318	B.A. Programme	Spreading Digital Literacy
42	Nidhi	2022/723	B.A. Programme	
43	Nishika	2022/1450	B.Sc. (Hons) Botany	Cyber Security
44	Durriya	2022/1458	B.Sc. (Hons) Botany	
45	Riya Gupta	2022/943	B.A. (Hons) Hindi	
46	Bhoomika	2022/1561	B.A. Programme	
47	Pratibha Kanwar	2022/1452	B.Sc. Physical Sciences with CS	Digital Services in Education
48	Mehak	2022/637	B.Sc. Physical Sciences with CS	
49	Nitigya Ayush	2022/1449	B.Sc. (Hons) Zoology	Digital services in healthcare

Programme: B.Sc. (Hons) Physics
Programme Code: 567
Semester: III
Paper: Basic Instrumentation Skills
Paper Code: 32223904
Total students undertaking projects: 191

Section 1 (2H1)
Faculty: Dr. Nirmala Saini, Dr. Divakar Pathak, Dr. Nisha Rani

S.No.	Roll No.	Name of the Student	Project Title	Project Mentor(s)
1.	461	Jyoti	Automated Weather Station	Dr. Nirmala Saini
2.	797	Kajal Jingar		
3.	487	Meenakshi Meena		
4.	287	Mahak Saini		

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S.No.	Roll No.	Name of the Student	Project Title	Project Mentor(s)
5.	190	Anandita	Smart Lamp: Lumos	Dr. Nirmala Saini
6.	468	Chanchal		
7.	345	Aditi		
8.	124	Devishi		
9.	627	Brijanshi		
10.	306	Anjali	LPG Gas Leakage Detector	Dr. Nirmala Saini
11.	644	Khushi Bai		
12.	441	Chandani		
13.	454	Kajal Chandola		
14.	452	Karishma Singh	Automatic Irrigation System	Dr. Nirmala Saini
15.	714	Khushboo		
16.	1223	Khushbu		
17.	1052	Khushi		
18.	702	Khushi		
19.	187	Anjali Baghel	Metal Detector	Dr. Nirmala Saini
20.	1038	Anjana Kori		
21.	971	Anjali Sharma		
22.	328	Akanksha Patel		
23.	378	Jiya Meena	Earthquake Alarm System	Dr. Nirmala Saini
24.	1008	Komal Bhatt		
25.	55	Kripa Swarnkar		
26.	941	Manasvee Agrawal		
27.	611	Hidha Shahin P K	Anti-Theft Alarm System	Dr. Nirmala Saini
28.	439	Kanika Soni		
29.	629	Hrishika P		
30.	673	Jyotsana Ram		
31.	282	Anuja Nair		
32.	849	Dipika	Electronic Eye: Controlled Security System	Dr. Nirmala Saini
33.	413	Arti		
34.	1161	Anjali		
35.	727	Chanchal		
36.	574	Aswathi Krishna R	Carbon Monoxide Tester in Vehicles	Dr. Nirmala Saini
37.	674	Anjali P		
38.	1251	Avantika Choudhary		
39.	947	Avni Jain		
40.	1164	Manisha Meena		
41.	38	Aruba Sultan	Air Quality Monitor	Dr. Nisha Rani
42.	829	Ayushi		
43.	351	Charu		
44.	757	Diya		
45.	949	Diksha Maurya		

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S.No.	Roll No.	Name of the Student	Project Title	Project Mentor(s)
46.	512	Khushi Singh	Laser Security System	Dr. Nisha Rani
47.	464	Khushi Sharma		
48.	561	Manvi Palsania		
49.	298	Laxmi		
50.	921	Kanika Palsaniya	Drowsiness Detector and Vehicle Stopping System	Dr. Nisha Rani
51.	946	Isha		
52.	773	Ekta Jagarwaad		
53.	778	Harleen Kaur		
54.	315	Donita	Solar Car	Dr. Nisha Rani
55.	953	Anshu		
56.	738	Ayushi		
57.	455	Bhumi		
58.	499	Liza Sharma	Water Level Indicator	Dr. Divakar Pathak
59.	223	Leena		
60.	1157	Manisha Jakhar		
61.	294	Barasha Deka		
62.	120	Amanjot Kaur	Automated Attendance System Using Arduino Uno and RFID System	Dr. Divakar Pathak
63.	919	Anjali		
64.	980	Helna		
65.	587	Ashwathi		
66.	334	Babita	Smart Dustbin Without Arduino	Dr. Divakar Pathak
67.	671	Deva		
68.	1007	Chanchal		
69.	739	Disha		
70.	420	Devika U	Smart Stick for Blind People	Dr. Divakar Pathak
71.	1114	Anaka P		
72.	1244	Devika Chandran		
73.	383	Anjana Arjunan K		
74.	1068	Beaulah K Binoy	Ultrasonic Glasses for Visually Challenged	Dr. Divakar Pathak
75.	1168	Fathima Fidha K		
76.	36	Afreena A		
77.	1077	Anjana J		
78.	159	Devananda A S	Machine Overheat Detection with Alert	Dr. Divakar Pathak
79.	1724	Lekshmi Sudin		
80.	1109	Dinasree A		
81.	1065	Asiya Mariya Vp		
82.	1187	Divya Kanav	Arduino Nano Based Drowsiness Detection System	Dr. Divakar Pathak
83.	1041	Divyanshika Kashyap		
84.	853	Devyanshi		
85.	857	Deepika		
86.	719	Kalpana	Automated Plane Watering	Dr. Nisha Rani

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S.No.	Roll No.	Name of the Student	Project Title	Project Mentor(s)
87.	763	Himanshi	System	
88.	1024	Kusum		
89.	539	Kusum Sirohi		
90.	256	Ashwathi Md	Obstacle Sensor Using Arduino Uno	Dr. Nisha Rani
91.	404	Anagha Ajith		
92.	626	Aishwarya Prasad		
93.	701	Bhawna		
94.	84	Ekta Sheoran	Automatic Light Switching Using Motion Sensors	Dr. Nisha Rani
95.	748	Ekta		
96.	94	Malavika A.		

Section 2 (2H2)
Faculty: Dr. Raishma Krishnan, Dr. Nisha Rani, Mr. Meethalal Meena

S. No.	College Roll No.	Name	Project Name	Project Mentor(s)
1.	463	Pooja	Train Accident Prevention	Dr. Raishma Krishnan and Mr. Meethalal Meena
2.	497	Neha		
3.	1905	Megha		
4.	1059	Neetu		
5.	40	Nidhi Siwach	Li-Fi: Data Transfer through Lightbulbs	Dr. Raishma Krishnan and Mr. Meethalal Meena
6.	888	Nandini		
7.	852	Neha		
8.	1092	Nidhi Malviya		
9.	1118	Muskan	Micro Servo Robotic Arm	Dr. Raishma Krishnan and Mr. Meethalal Meena
10.	518	Muskan Agarwal		
11.	1211	Namita		
12.	538	Nikita Joshi		
13.	207	Namashaya Gogoi	Automatic Irrigation System	Dr. Raishma Krishnan and Mr. Meethalal Meena
14.	163	Palak Makkar		
15.	178	Pallavi		
16.	1017	Pallavi Gautam		
17.	817	Sakshi Punia	Arduino Radar for Object Detection	Dr. Raishma Krishnan and Mr. Meethalal Meena
18.	922	Renu Siwach		
19.	662	Rinki Verma		
20.	1134	Santosh Kumari		
21.	1214	Priya Kumari	Voice Amplifier Masks	Dr. Raishma Krishnan and Mr. Meethalal Meena
22.	248	Shalini Meena		

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S. No.	College Roll No.	Name	Project Name	Project Mentor(s)
23.	1185	Pratiksha Sharma		
24.	956	Neha V K		
25.	160	Rishita Pathak	Electrical energy from sound waves	Dr. Raishma Krishnan and Mr. Meethalal Meena
26.	831	Seerat Khan		
27.	625	Suchita Agarwal		
28.	1112	Tanisha Sharma		
29.	1100	Priya Kalakoti	Flood Alarm System	Dr. Raishma Krishnan and Mr. Meethalal Meena
30.	608	Rashi Mittal		
31.	1323	Sakshi Jat		
32.	969	Sakshi		
33.	126	Prerna Singh		
34.	484	Priyanka		
35.	91	Priya		
36.	183	Purvanshi	Electric Piano	Dr. Raishma Krishnan and Mr. Meethalal Meena
37.	437	Sapna Singla		
38.	475	Shama Yadav		
39.	758	Tanisha Singh		
40.	1130	Riya		
41.	879	Garima		
42.	158	Pooja Saini	Accident prevention in hilly areas	Dr. Raishma Krishnan and Mr. Meethalal Meena
43.	1047	Pooja Yadav		
44.	202	Sanjana		
45.	826	Pranjal Bishnoi		
46.	1102	Priyanka Yadav	Air Quality Sensor	Dr. Raishma Krishnan and Mr. Meethalal Meena
47.	407	Varsha		
48.	703	Samita Choudhary		
49.	824	Ritika		
50.	590	Preeti	Food spoilage sensor	Dr. Raishma Krishnan and Dr. Nisha Rani
51.	1001	Priyamvada		
52.	1906	Urmila		
53.	643	Soniya		
54.	569	Rashi Thakur	Laser Alarm Security System	Dr. Raishma Krishnan and Dr. Nisha Rani
55.	1904	Sneha Singh		
56.	122	Shagun		
57.	586	Tanvir Kaur		
58.	591	Pooja Lamrod	Human Following Robot	Dr. Raishma Krishnan and Dr. Nisha Rani
59.	890	Nidhi Choudhary		
60.	612	Yashika		
61.	1118	Muskan	Micro servo robotic arm	Dr. Raishma Krishnan and Dr. Nisha Rani
62.	518	Muskan Aggarwal		

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S. No.	College Roll No.	Name	Project Name	Project Mentor(s)
63.	1211	Namita		
64.	538	Nikita		
65.	488	Monika	Third eye for the blind	Dr. Raishma Krishnan and Dr. Nisha Rani
66.	564	Aarti		
67.	143	Neha Choundhary		
68.	1169	Poonam		
69.	520	Nandana M	LPG Leakage Detector	Dr. Raishma Krishnan and Dr. Nisha Rani
70.	67	Niveditha R Nair		
71.	1207	Mukul		
72.	1120	Nishitha		
73.	486	Pragya Dobhal	Magnetic Levitation Train	Dr. Raishma Krishnan and Dr. Nisha Rani
74.	219	Sentinaro P Pongen		
75.	462	Shamitha Shivani V		
76.	435	Tanuja Bora		
77.	195	Priyanka	Automatic Zebra Crossing	Dr. Raishma Krishnan and Dr. Nisha Rani
78.	1123	Rebec		
79.	211	Sunidhi		
80.	376	Ritu	Vehicle to vehicle communication	Dr. Raishma Krishnan and Dr. Nisha Rani
81.	1010	Ritika		
82.	601	Priya		
83.	656	Rekha		
84.	109	Vasundhara	IR Remote Tester	Dr. Raishma Krishnan and Dr. Nisha Rani
85.	1224	Sai Sree		
86.	543	Siya A		
87.	594	Soumya Shree		
88.	93	Suvarna Saraswat	Antisleep Alarm	Dr. Raishma Krishnan and Dr. Nisha Rani
89.	406	Yogshree		
90.	592	Simran		
91.	939	Yukti		
92.	908	Swati Santhosh	Smart stick for blind	Dr. Raishma Krishnan and Dr. Nisha Rani
93.	926	Vishnunanda		
94.	1123	Renitta Rose Tharakan		
95.	879	Garima	Automatic street light	Dr. Raishma Krishnan and Dr. Nisha Rani

Note:

Saniya Bainad (2021/621), 2H2	Did not work on a project

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Programme: B.Sc. (Hons) Physics, CBCS
Semester: IV
Course: SEC
Paper: Renewable Energy and Energy Harvesting
Paper Code: 32223905
Total students undertaking projects: 190

Section 1 (2H1)
Faculty: Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal

S. No.	Roll No.	Name of Students	Project Title	Project Mentor(s)
1	971	Anjali Sharma	Foot Power Generation for Mobile Charging.	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
2	187	Anjali Baghel		
3	328	Akanksha Patel		
4	1038	Anjana Kori		
5	120	Aman jot	Synthesis of KNN	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
6	919	Anjali Mehra		
7	587	Aswathi M		
8	980	Helna Benny		
9	345	Aditi	PAVE IT (Piezoelectric Automated Vegetation Energy)	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
10	190	Anandita		
11	627	Brijanshi		
12	468	Chanchal		
13	124	Deveshi		
14	829	Ayushi	Breakers to light (Piezoelectric generator)	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
15	38	Aruba		
16	351	Charu		
17	949	Diksha Maurya		
18	757	Diya		
19	1251	Avantika Choudhary	Solar Tracking System	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
20	1007	Chanchal		
21	947	Avni		
22	671	Deva		
23	1164	Manisha		
24	256	Ashwathi M D	Hybrid energy based mobile charger	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
25	36	Affreena		
26	673	Jothsna Ram		
27	1065	Asiya Mariya VP		

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S. No.	Roll No.	Name of Students	Project Title	Project Mentor(s)
28	306	Anjali	Hybrid power plant	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
29	441	Chandni		
30	644	Khushi Bai		
31	454	Kajal Chandola		
32	849	Deepika	Solar UPS	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
33	413	Arti		
34	1161	Anjali		
35	727	Chanchal Sain		
36	629	Hrishika P	Thermo Electric Generator	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
37	611	Hidha Shahin P.K.		
38	159	Deva Nanda A.S.		
39	94	Malavika A.		
40	1008	Komal Bhatt	Demonstration of Peizoelectric Sensor	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
41	55	Kripa Swarnkar		
42	941	Manasvee Agrawal		
43	378	Jiya Meena		
44	953	Anshu	Flood Detector Using Soil Moisture Detector	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
45	738	Ayushi		
46	1024	Kusum		
47	1068	Beaulah	Air Purifier Using Solar Energy	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
48	1109	Dinasree A.		
49	1724	Lekshmi Sudin		
50	1077	Anjana J.		
51	1065	Asiya Mariyam		
52	1244	Devika Chandran	Foot step power generation	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
53	626	Aiswarya Prasad		
54	404	Anagha Ajith		
55	420	Devika U.		
56	512	Khushi Singh	Solar Boat	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
57	464	Khushi Sharma		
58	499	Liza Sharma		
59	719	Kalpana		
60	223	Leena	Wind Street Light	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
61	294	Barasha Deka		
62	1052	Khushi		
63	1157	Manisha Jakhar		
64	334	Babita Rani	Solar Tracker	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
65	461	Jyoti		
66	739	Disha Chaudhary		
67	287	Mahak Saini		

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S. No.	Roll No.	Name of Students	Project Title	Project Mentor(s)
68	1223	Khushbu	Electricity produced from sound energy	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
69	714	Khushboo		
70	702	Khushi Jangra		
71	452	Karishma Singh		
72	383	Anjana k Arjunan	Power Efficient Public Spots	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
73	574	Aswathi Krishna R.		
74	282	Anuja Nair		
75	1114	Anaka P.		
76	674	Anjali P.		
77	921	Kanika Palsaniya	Demonstration of magnetic energy to electric energy conversion.	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
78	778	Harleen Kaur		
79	946	Isha		
80	773	Ekta Jagarwad		
81	1187	Divya Kanav	Smart Irrigation System	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
82	1041	Divansaka Kashyap		
83	763	Himanshi		
84	539	Kusum Sirohi		
85	797	Kajal Jingar	Smart Power Shoe System	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
86	561	Manvi Palsaniya		
87	487	Meenakshi Meena		
88	298	Laxmi		
89	315	Donita K	Solar powered irrigation system	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
90	853	Devyanshi		
91	1168	Fathima Fidha K		
92	455	Bhumi pal		
93	701	Bhawna	SOLAR TRACKING SYSTEM	Dr. Raishma Krishnan, Ms. Zarina Banoo and Dr. Ambuja Jaiswal
94	857	Deepika		
95	84	Ekta Sheoran		
96	748	Ekta		

Section 2 (2H2)
Faculty: Dr. Sanju, Dr. Divakar Pathak, Ms. Vineeta

S. No.	Roll No	Student	Project Title	Project Mentor(s)
1.	1905	Megha Atri	Energy From Smoke	Dr. Divakar Pathak
2.	488	Monika	Rainwater Energy Harvesting	Dr. Divakar Pathak
3.	802	Monika	Solar Tracker	Dr. Sanju

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S. No.	Roll No	Student	Project Title	Project Mentor(s)
4.	1207	Mukul	Converting Wind Energy into Electrical Energy	Dr. Divakar Pathak
5.	1118	Muskan	Solar Car	Dr. Divakar Pathak
6.	518	Muskan Agarwal	Solar Car	Dr. Divakar Pathak
7.	1242	Muskan Arya	Solar Tracker	Dr. Sanju
8.	207	Namashya Gogoi	Solar Power Bank	Dr. Divakar Pathak
9.	1211	Namita Pradhan	Solar Power Bank	Dr. Divakar Pathak
10.	520	Nandana M	Solar Powered Arduino to Drive A Motor	Dr. Divakar Pathak
11.	888	Nandini	Energy From Smoke	Dr. Divakar Pathak
12.	1059	Neetu Meena	Energy From Smoke	Dr. Divakar Pathak
13.	497	Neha	Energy Harvesting Bagpack Systems	Dr. Vineeta
14.	852	Neha	Solar Car	Dr. Divakar Pathak
15.	143	Neha Choudhary	Rainwater Energy Harvesting	Dr. Divakar Pathak
16.	956	Neha V K	Generating Electrical Energy Using Solar Energy	Dr. Vineeta
17.	373	Nidhi	Solar Tracker	Dr. Sanju
18.	40	Nidhi	Energy Harvesting Bag Pack Systems	Dr. Vineeta
19.	899	Nidhi Choudhary	Rainwater Energy Harvesting	Dr. Divakar Pathak
20.	1092	Nidhi Malviya	Solar Power Bank	Dr. Divakar Pathak
21.	934	Nikita	Energy From Smoke	Dr. Divakar Pathak
22.	538	Nikita Joshi	Solar Power Bank	Dr. Divakar Pathak
23.	1120	Nishita	Solar Tracker	Dr. Sanju
24.	672	Niveditha R Nair	Solar Powered Arduino to Drive A Motor	Dr. Divakar Pathak
25.	163	Palak Makkar	Energy Harvesting Bag Pack Systems	Dr. Vineeta
26.	178	Pallavi	Solar Powered Arduino to Drive a Motor	Dr. Divakar Pathak
27.	1017	Pallavi Gautam	Solar Powered Arduino to Drive a Motor	Dr. Divakar Pathak
28.	463	Pooja	Solar Car	Dr. Divakar Pathak
29.	591	Pooja Lamrod	A Breath of Fresh Air (Wind Energy)	Dr. Vineeta
30.	158	Pooja Saini	Generation Of Electricity by Speed Breaker	Dr. Vineeta
31.	1047	Pooja Yadav	Generation Of Electricity by Speed Breaker	Dr. Vineeta
32.	1169	Poonam	Wearable Body Heat	Dr. Vineeta

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S. No.	Roll No	Student	Project Title	Project Mentor(s)
			Thermoelectric Energy Harvestor	
33.	486	Pragya Dobhal	Solar-Powered Arduino Weather Station	Dr. Vineeta
34.	826	Pranjal Bishnoi	Generation Of Electricity By Speed Breaker	Dr. Vineeta
35.	117	Pratibha	Wearable Body Heat Thermoelectric Energy Harvestor	Dr. Vineeta
36.	1185	Pratiksha Sharma	Radio Frequency Energy Harvesting	Dr. Vineeta
37.	590	Preeti	A Breath of Fresh Air (Wind Energy)	Dr. Vineeta
38.	126	Prerna Singh	Temperature Based Fan Speed Control System	Dr. Vineeta
39.	91	Priya	Radio Frequency Energy Harvesting	Dr. Vineeta
40.	601	Priya Jangid	A Breath of Fresh Air (Wind Energy)	Dr. Vineeta
41.	1100	Priya Kalakoti	Magne-Coil Electrica	Dr. Vineeta
42.	1214	Priya Kumari	Wearable Body Heat Thermoelectric Energy Harvestor	Dr. Vineeta
43.	1001	Priyamvada	Temperature Based Fan Speed Control System	Dr. Vineeta
44.	195	Priyanka	Energy Harvesting from Road	Dr. Vineeta
45.	484	Priyanka Kumari	A Breath of Fresh Air (Wind Energy)	Dr. Vineeta
46.	1102	Priyanka Yadav	Converting Wind Energy into Electrical Energy	Dr. Divakar Pathak
47.	183	Purvanshi	Solar Powered Mobile Phone Charger	Dr. Vineeta
48.	608	Rashi Mittal	Magne-Coil Electrica	Dr. Vineeta
49.	569	Rashi Thakur	Energy Harvesting Using Piezoelectric Disc	Dr. Sanju
50.	1123	Rebec Malsawmdawngi	Energy Harvesting from Road	Dr. Vineeta
51.	656	Rekha	Piezoelectric Effect on a Treadmill	Dr. Vineeta
52.	1123	Renitta Rose Tharakan	Solar Powered Automatic Irrigation System	Dr. Sanju
53.	922	Renu	Converting sound energy Into Electrical energy	Dr. Sanju
54.	662	Rinki Verma	Energy Harvesting from Road	Dr. Vineeta

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S. No.	Roll No	Student	Project Title	Project Mentor(s)
55.	160	Rishita Pathak	Radio Frequency Energy Harvesting	Dr. Sanju
56.	1010	Ritika D/O Pradeep Kumar	Converting sound energy Into Electrical energy	Dr. Sanju
57.	824	Ritika D/O Jitender	Absent	Absent
58.	376	Ritu	Tasteira Autoalimentato	Dr. Sanju
59.	1130	Riya	Temperature Based Fan Speed Control System	Dr. Vineeta
60.	1224	Saisree S	Generating Electrical Energy Using Solar Energy	Dr. Vineeta
61.	969	Sakshi	Magne-Coil Electrica	Dr. Vineeta
62.	1323	Sakshi Jat	Magne-Coil Electrica	Dr. Vineeta
63.	817	Sakshi Punia	Converting sound energy into Electrical energy	Dr. Sanju
64.	703	Samita Choudhary	Converting Wind Energy into Electrical Energy	Dr. Divakar Pathak
65.	202	Sanjana	Generation of Electricity by Speed Breaker	Dr. Vineeta
66.	1134	Santosh Kumari	Solar Powered Mobile Phone Charger	Dr. Vineeta
67.	437	Sapna Singla	Solar Powered Mobile Phone Charger	Dr. Vineeta
68.	831	Seerat Fatima Khan	Radio Frequency Energy Harvesting	Dr. Sanju
69.	219	Sentinaro Pelekhrienuo Pongen	Solar-Powered Arduino Weather Station	Dr. Vineeta
70.	122	Shagun	Energy Harvesting Using Piezoelectric Disc	Dr. Sanju
71.	248	Shalini Meena	Wearable Body Heat Thermoelectric Energy Harvestor	Dr. Vineeta
72.	475	Shama Yadav	Solar Powered Mobile Phone Charger	Dr. Vineeta
73.	462	Shamitha Shivani V	Solar-Powered Arduino Weather Station	Dr. Vineeta
74.	592	Simran	Tasteira Autoalimentato	Dr. Sanju
75.	543	Siya A	Generating Electrical Energy Using Solar Energy	Dr. Vineeta
76.	1904	Sneha Singh	Energy Harvesting Using Piezoelectric Disc	Dr. Sanju
77.	693	Soniya	Radio Frequency Energy Harvesting	Dr. Vineeta

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S. No.	Roll No	Student	Project Title	Project Mentor(s)
78.	594	Soumya Shree S	Generating Electrical Energy Using Solar Energy	Dr. Vineeta
79.	625	Suchita Agarwal	Radio Frequency Energy Harvesting	Dr. Sanju
80.	211	Sunidhi	Energy Harvesting from Road	Dr. Vineeta
81.	93	Suvarna Saraswat	Radio Frequency Energy Harvesting	Dr. Vineeta
82.	908	Swathi Santhosh	Solar Powered Automatic Irrigation System	Dr. Sanju
83.	1112	Tanisha	Radio Frequency Energy Harvesting	Dr. Sanju
84.	758	Tanisha Singh	Tasteira Autoalimentato	Dr. Sanju
85.	435	Tanuja Bora	Solar-Powered Arduino Weather Station	Dr. Vineeta
86.	586	Tanvir Kaur Saran	Energy Harvesting Using Piezoelectric Disc	Dr. Sanju
87.	1906	Urmila	Temperature Based Fan Speed Control System	Dr. Vineeta
88.	407	Varsha	Converting Wind Energy into Electrical Energy	Dr. Divakar Pathak
89.	1091	Vasundhara	Tasteira Autoalimentato	Dr. Sanju
90.	926	Vishnunanda M	Solar Powered Automatic Irrigation System	Dr. Sanju
91.	406	Yogshree	Piezoelectric Effect on a Treadmill	Dr. Vineeta
92.	939	Yukti Yadav	Piezoelectric Effect on a Treadmill	Dr. Vineeta
93.	564	Aarti	Rainwater Energy Harvesting	Dr. Divakar Pathak
94.	879	Garima	Energy Harvesting Bag Pack Systems	Dr. Vineeta

Note:

Saniya Bainad (2021/621), 2H2	Did not work on a project
Yashika (2021/612), 2H2	

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Part A.2

Students undertaking project work/field work/internship (beyond the requirements of coursework)

A.2.1

Following students of B.Sc. (Hons) Physics and B.Sc. Physical Sciences with Computers participated in the **6-weeks long DSKC Summer Workshop 2021, held from 9 June to 21 July 2022** and successfully completed their projects.

https://mirandahouse.ac.in/uploads/dskc/summerworkshop/2022%20DSKC%20Summer%20Workshop%20Report.pdf

S.No.	Student Name	Project Name	Teacher Mentor
Programme Name: B.Sc. (Hons) Physics; Programme Code: 567			
1	Aiswarya Prasad, Sem-2	Green Audit of College	Dr. Rashmi Rakshit, Dr. Ruchi Gupta, Dr. Sandhya S.N.
2	Chanchal, Sem-2		
3	Manasvee Agrawal, Sem-2		
4	Kanika Palsaniya, Sem-2		
5	Khushi Sharma, Sem-2		
6	Namita Pradhan, Sem-2		
7	Helna Benny, Sem-2		
8	Anagha Ajith, Sem-2		
9	Neha V K, Sem-2		
10	Nikita Joshi, Sem-2		
11	Nidhi Malviya, Sem-2		
12	Nandini Chhatrawal, Sem-2	Ancient Wisdom v/s Modern Technology	Dr. Rashmi Rakshit, Dr. Ruchi Gupta, Dr. Sandhya S.N.
13	Jyoti Fageria, Sem-2		
14	Kajal Jingar, Sem-2		
15	Ekta, Sem-2	Canteen Water and Power	Dr. Rashmi Rakshit, Dr. Ruchi Gupta, Dr. Sandhya S.N.
16	Arti, Sem-2		
17	Aarti, Sem-2		
18	Divya, Sem-2		
19	Hrishika, Sem-2	Hostel Ventilation and	Dr. Rashmi Rakshit, Dr. Ruchi

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S.No.	Student Name	Project Name	Teacher Mentor
20	Nandana M, Sem-2	Light	Gupta, Dr. Sandhya S.N.
21	Hidha Shahin P K , Sem-2		
22	Palak Makkar, Sem-2		
23	Niveditha R Nair, Sem-2		
24	Lekshmi Sudin, Sem-2		
25	Anandita, Sem-2	Biometric Authentication	Dr. Nirmala Saini
26	Mahak Poonia, Sem-4	Brain Tumor Detection using Image Processing Techniques	Dr. Sanju, Dr. Nirmala Saini, Dr. Sonam Singh, Dr. Raishma Krishnan
27	Ajita Tiwari, Sem-4		
28	Astha Asati, Sem-4		
29	Preety Khatkar, Sem-6	Orbital Elements and Satellite TLE Data	Dr. Divakar Pathak
30	Yuglesh Kumari, Sem-6		
31	Pooja Chaudhary, Sem-6		
32	Paridhi Goel, Sem -6		
33	Tanu Kumari, Sem-4	Synthesis of Zeolite for sensing NO2 gas	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
34	Aswathi M D, Sem-2	Automatic Shopping Card	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
35	Diksha Maurya, Sem-2		
36	Amanjot Kaur, Sem-2		
37	Pranjal, Sem-2	Sensors Based Lab	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
38	Pratibha, Sem-2		
39	Soumyashree S., Sem-2		
40	Fathima Fidha K, Sem-2		
43	Tanya Gupta, Sem-4	Study of Pure and Doped ZnO-Based Flexible-Piezoelectric Energy Harvesting Nanogenerators	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
44	Taniya Sandhu, Sem-4		
46	Deepanshi Singh, Sem-4	Bayesian modelling in LISA data using Markov Chain Monte Carlo	Dr. Abha Dev Habib, Dr. Nisha Rani
48	Aditi Sharma, Sem-4	Constraining Λ-CDM model and Dispersion Measure of Host Galaxies	Dr. Abha Dev Habib, Dr. Nisha Rani

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S.No.	Student Name	Project Name	Teacher Mentor
		Using Statistical Tools on FRBs	
49	Aruba Sultan, Sem-2	Important Statistical methods in Cosmology	Dr. Abha Dev Habib, Dr. Nisha Rani
50	Aditi Singh, Sem-2		
51	Pragya Dobhal, Sem-2		
52	Shamitha Shivani V, Sem-2		
Programme Name: B.Sc. Physical Sciences with CS; Programme Code: 582			
1	Anisha Yadav, Sem-4	Growth of Antimony Telluride for cooling devices	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
2	Mahima Momaliya, Sem-2	Materials for EMI Shielding	Dr. Monika Tomar, Dr. Mallika Verma, Dr. Bilasini Neorem, Dr. Geeta Rani
3	Rashmi Sarwal, Sem-6	Constraining Λ-CDM model and Dispersion Measure of Host Galaxies Using Statistical Tools on FRBs	Dr. Abha Dev Habib, Dr. Nisha Rani
4	Shakshi, Sem-6		

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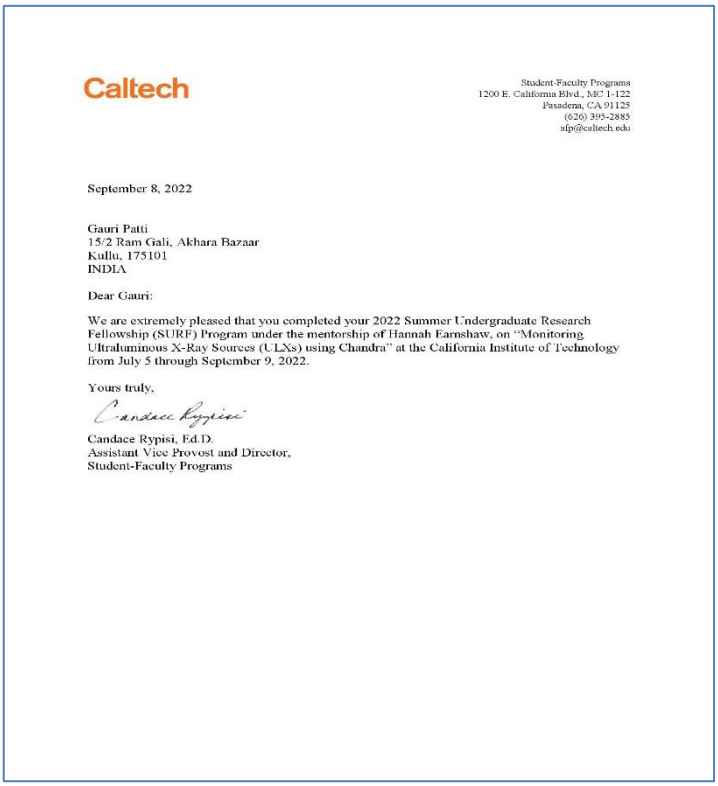
A.2.2

Summer workshops/ projects completed successfully by students at other Institutions

1. Gauri Patti
B.Sc. (Hons) Physics
Semester-4; Roll No: 2020/139
Agency/Institution: 2022 Summer Undergraduate Research Fellowship (SURF) Program, California Institute of Technology.
Project Title: Monitoring Ultraluminous X-Ray Sources using Chandra
Period: 5.7.2022 – 9.9.2022



Caltech

Student-Faculty Programs
1200 E. California Blvd., MC 1-122
Pasadena, CA 91125
(626) 395-2883
sfp@caltech.edu

September 8, 2022

Gauri Patti
15/2 Ram Gali, Akhara Bazaar
Kullu, 175101
INDIA

Dear Gauri:

We are extremely pleased that you completed your 2022 Summer Undergraduate Research Fellowship (SURF) Program under the mentorship of Hannah Earnshaw, on "Monitoring Ultraluminous X-Ray Sources (ULXs) using Chandra" at the California Institute of Technology from July 5 through September 9, 2022.

Yours truly,

Candace Rypisi

Candace Rypisi, Ed.D.
Assistant Vice Provost and Director,
Student-Faculty Programs

2. Astha Asti
B.Sc. (Hons) Physics Semester-4;
Roll No: 2020/491
Agency/Institute: Indian Institute of Technology, Indore
Project Title: Device Physics
Period: 15.6.2022 to 14.7.2022

INDIAN INSTITUTE OF TECHNOLOGY INDORE
(An autonomous institute under the Ministry of Education, Government of India)

e-CERTIFICATE

This is to certify that Ms. Astha Asati has successfully completed the "Online Internship for the Undergraduate Students" with IIT Indore Faculty Mentor Professor Rajesh Kumar, Department of Physics, from June 15, 2022, to July 14, 2022. She has worked on the area entitled "Device Physics".

Professor Rajesh Kumar
IIT Indore Faculty Mentor

Professor Anand Parey
Dean, Alumni, and Corporate Relations

Teacher-in-charge
Department of Physics
Miranda House
University of Delhi
DELHI-110007

AbhaDev

3. Anadita
B.Sc. (Hons) Physics
Semester- III; 2021/190
Institute/Agency: Google Developer Student Clubs
Project Title: College Application
Period: 8.9.2022 - 16.10.2022

CERTIFICATE OF COMPLETION

This certificate is proudly presented to

Anandita

for completing the campaign **COMPOSE CAMP** conducted by Google Developer Student Club, Miranda House, University of Delhi from 8 September to 16 October.

Shakshi
GDSC Lead

Prof. Dr. Monika Tomar
Faculty Advisor

Google Developer Student Clubs
Miranda House, University of Delhi

Date of Issue:
October 2022

CERTIFICATE OF APPRECIATION

This certificate is proudly presented to

Anandita

who has successfully created a project, **COLLEGE APPLICATION** under the campaign **COMPOSE CAMP** conducted by Google Developer Student Club, Miranda House, University of Delhi from 8 September to 16 October.

Shakshi
GDSC Lead

Prof. Dr. Monika Tomar
Faculty Advisor

Google Developer Student Clubs
Miranda House, University of Delhi

Date of Issue:
October 2022

Teacher-in-charge
Department of Physics
Miranda House
University of Delhi
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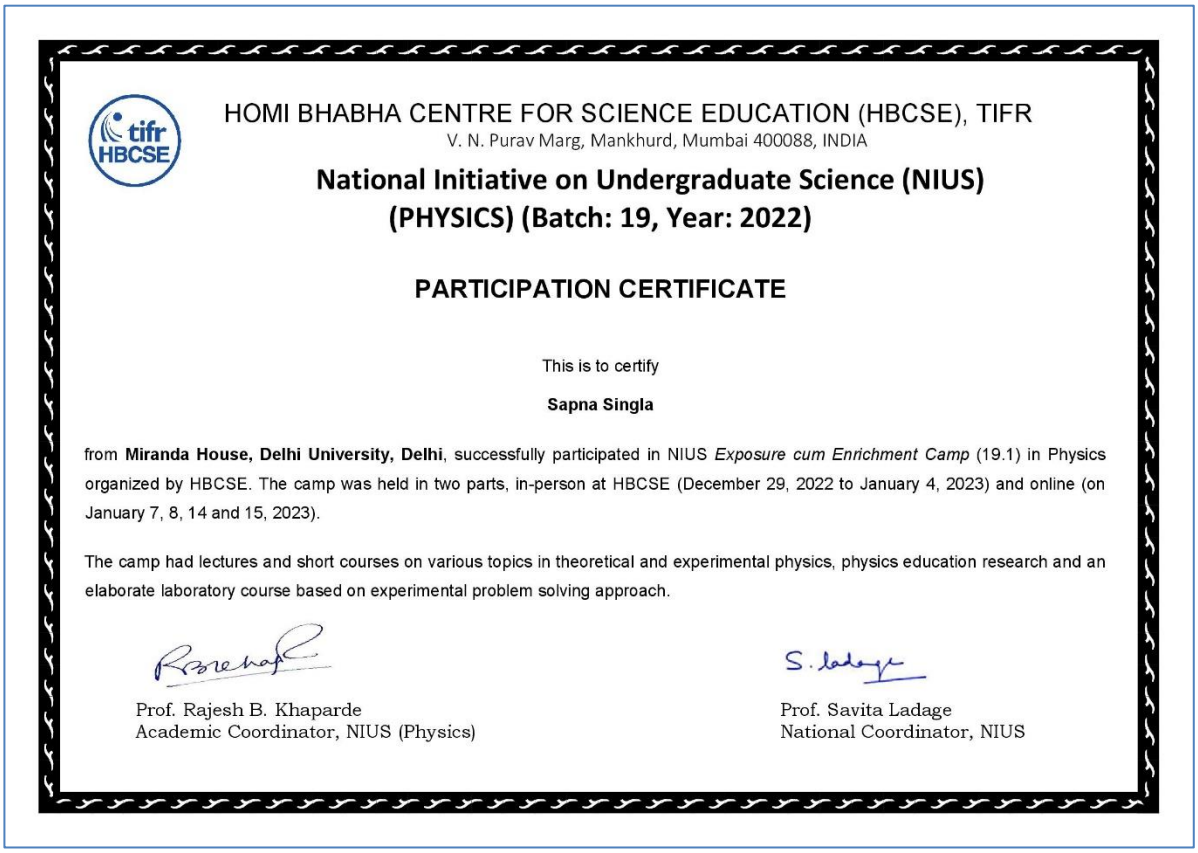
4. Sapna Singla
B.Sc. (Hons) Physics
II[nd] Year; Roll No: 2021/437
Workshop: Exposure cum Enrichment Camp (19.1) in Physics
Institution: National Initiative on Undergraduate Science (NIUS),
Homi Bhabha Centre for Science Education, TIFR
Period: 29.12.2022 – 4.1.2023 and online on 7.1.2023, 8.1.2023, 14.1.2023 and 15.1.2023



HOMI BHABHA CENTRE FOR SCIENCE EDUCATION (HBCSE), TIFR
V. N. Purav Marg, Mankhurd, Mumbai 400088, INDIA

National Initiative on Undergraduate Science (NIUS)
(PHYSICS) (Batch: 19, Year: 2022)

PARTICIPATION CERTIFICATE

This is to certify

Sapna Singla

from **Miranda House, Delhi University, Delhi**, successfully participated in NIUS *Exposure cum Enrichment Camp* (19.1) in Physics organized by HBCSE. The camp was held in two parts, in-person at HBCSE (December 29, 2022 to January 4, 2023) and online (on January 7, 8, 14 and 15, 2023).

The camp had lectures and short courses on various topics in theoretical and experimental physics, physics education research and an elaborate laboratory course based on experimental problem solving approach.

Prof. Rajesh B. Khaparde
Academic Coordinator, NIUS (Physics)

Prof. Savita Ladage
National Coordinator, NIUS

Teacher-in-charge
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