



Miranda House UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Physics

Academic Year: 2017 – 2018 (from 1 July 2017 to 30 June 2018)

Part A.1

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

Programme: B.Sc (Hons) Physics

Semester: III

Paper: Basic Instrumentation Skills

Paper Code: 32223904

Faculty: Dr. Monika Tomar

Total students undertaking projects: 113

| S NO | ROLL NO | NAME | S NO | ROLL NO | NAME |
|------|-----------|-------------------|------|-----------|----------------|
| 1 | 2016/1452 | ADITI D/O AMIT | 57 | 2016/377 | POOJA |
| 2 | 2016/787 | ADITI D/O RAJEEV | 58 | 2016/1180 | POOJA RATTEWAL |
| 3 | 2016/1609 | AMBIKA N. | 59 | 2016/1500 | POONAM KUMARI |
| 4 | 2016/782 | ANANYA KUMARI | 60 | 2016/719 | PRAGATI |
| 5 | 2016/1370 | ANJALI | 61 | 2016/658 | PRATIBHA |
| 6 | 2016/862 | ANKITA | 62 | 2016/1602 | PREMLATA |
| 7 | 2016/1474 | ANKITA MATHUR | 63 | 2016/663 | PRISHA |
| 8 | 2016/647 | ANKITA YADAV | 64 | 2016/1244 | PRIYA YADAV |
| 9 | 2016/725 | ANMOL BATRA | 65 | 2016/856 | PRIYAMVADA D. |
| 10 | 2016/1347 | ANU | 66 | 2016/1210 | PRIYANKA |
| 11 | 2016/271 | ANU VERMA | 67 | 2016/330 | RACHANA |
| 12 | 2016/1435 | ANUKOOL YADAV | 68 | 2016/867 | RADHIKA SINGLA |
| 13 | 2016/731 | ANUSHVI PANWAR | 69 | 2016/68 | RAJDEEP KAUR |
| 14 | 2016/903 | ARPNA | 70 | 2016/690 | RAJNANDINI M. |
| 15 | 2016/714 | ASHI JAIN | 71 | 2016/954 | RAKHI VERMA |
| 16 | 2016/847 | ASTHA BANSAL | 72 | 2016/736 | RASHMI |
| 17 | 2016/730 | ASTHA SHRIVASTAVA | 73 | 2016/170 | RASHMI YADAV |
| 18 | 2016/826 | BHARTI | 74 | 2016/1482 | REBIKA OINAM |



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| S NO | ROLL NO | NAME | S NO | ROLL NO | NAME |
|------|-----------|----------------------|------|-----------|---------------------|
| 19 | 2016/650 | BHARTI | 75 | 2016/823 | RICHA SHARMA |
| 20 | 2016/1588 | BHAWNA | 76 | 2016/1332 | RIDDHI TIWARI |
| 21 | 2016/1442 | CHARU | 77 | 2016/713 | RIDDHIMA PURI |
| 22 | 2016/673 | CHINKEY | 78 | 2016/350 | RITU |
| 23 | 2016/877 | DEEKSHA SINGH | 79 | 2016/446 | RIYA SHARMA |
| 24 | 2016/835 | DEEPALI GUPTA | 80 | 2016/113 | RUBY VERMA |
| 25 | 2016/62 | DIPIKA BASUMATARY | 81 | 2016/709 | SAHAJA KANURI |
| 26 | 2016/131 | GITIKA | 82 | 2016/341 | SANGEETA |
| 27 | 2016/1350 | HIMANI | 83 | 2016/1360 | SAPNA |
| 28 | 2016/158 | ISHA | 84 | 2016/469 | SHEETAL |
| 29 | 2016/560 | ITISHA | 85 | 2016/649 | SHIPRA ASWAL |
| 30 | 2016/830 | KARTHIKA K | 86 | 2016/865 | SHIPRA VERMA |
| 31 | 2016/1322 | KESHVI TUTEJA | 87 | 2016/456 | SHIVANI SHARMA |
| 32 | 2016/686 | KHUSHBOO GUPTA | 88 | 2016/711 | SHIVANI SINGH |
| 33 | 2016/718 | KHUSHBU | 89 | 2016/1477 | SHIVI SAINI |
| 34 | 2016/590 | KM AAKANSHA SHRI | 90 | 2016/710 | SHIWANI CHHIKARA |
| 35 | 2016/448 | KM KOMAL | 91 | 2016/313 | SHREYA GIRI |
| 36 | 2016/515 | KOMAL D/O RAJ KR | 92 | 2016/806 | SHREYA MISHRA |
| 37 | 2016/930 | KOMAL D/O AJAY | 93 | 2016/851 | SHRUTI GUPTA |
| 38 | 2016/1592 | KOMAL D/O DINESH | 94 | 2016/239 | SHUBHI JAIN |
| 39 | 2016/1616 | KOMAL D/O YASHVIR | 95 | 2016/785 | SHWETA JOSHI |
| 40 | 2016/272 | KRITI MAHAJAN | 96 | 2016/844 | SMRITI |
| 41 | 2016/716 | KRITIKA MNDEJA | 97 | 2016/657 | SNEHI KHANDELWAL |
| 42 | 2016/1431 | KASH GLENNA DEVI | 98 | 2016/337 | SONAM |
| 43 | 2016/841 | KUMARI SONIA | 99 | 2016/338 | SUCHITA AGRAWAL |
| 44 | 2016/169 | KM VAISHALI | 100 | 2016/790 | SUNITA KHOD |
| 45 | 2016/282 | LAXMI BAI MEENA | 101 | 2016/812 | TAMANNA SHARMA |
| 46 | 2016/243 | LUCKY CHAUDHARY | 102 | 2016/804 | TAMANNA DALAL |
| 47 | 2016/265 | MANI KARNIKA | 103 | 2016/465 | TANU |
| 48 | 2016/784 | MANISHA | 104 | 2016/1057 | TANYA KHULLAR |
| 49 | 2016/1470 | MANSI CHOUDHARY | 105 | 2016/1348 | T. S. DEVI |
| 50 | 2016/932 | MITALI SHARMA | 106 | 2016/1183 | USHA |



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| S NO | ROLL NO | NAME | S NO | ROLL NO | NAME |
|------|----------|-----------------|------|-----------|------------------|
| 51 | 2016/636 | MRINAL PANDIT | 107 | 2016/205 | VINITA BANGA |
| 52 | 2016/840 | MUSKAN | 108 | 2016/1481 | W. BABINA DEVI |
| 53 | 2016/651 | NAMITA BHANDARI | 109 | 2016/453 | YACHIKA |
| 54 | 2016/322 | NIDHI PATEL | 110 | 2016/1049 | YS. S. P. KHAPAI |
| 55 | 2016/671 | NIKITA GAHLAWAT | 111 | 2016/786 | SAMREEN REHMANI |
| 56 | 2016/905 | N. THAIMEI | 112 | 2016/1420 | TANUJA |
| | | | 113 | 2016/586 | SHREYASHI SHUKLA |

Programme: BSc (Hons) Physics, CBCS

Semester: IV

Course: SEC

Paper: Renewable Energy and Energy Harvesting

Paper Code: 32223905

Faculty: Dr Mallika Verma, Dr Rashmi Rakshit and Dr Monika Tomar

Total students undertaking projects: 113 (same set of students as listed above)

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 participated in the 6-weeks long DSKC Summer Workshop 2017, held from 5 June to 19 July 2017 and successfully completed their projects.

For more info see:

<https://mirandahouse.ac.in/uploads/dskc/summerworkshop/2017%20DSKC%20Summer%20Workshop%20Report.pdf>

| S No | Name and year of the course | Title of the Project |
|------|-----------------------------|---|
| 1. | Laxmi Gupta, II Year | Build a Smart Garden using Arduino |
| 2. | Ankita, II Year | Exploring Light Spectra: Introductory Studies in Spectrophotometry |
| 3. | Pratibha, II Year | Exploring Light Spectra: Introductory Studies in Spectrophotometry |
| 4. | Anshumali, III Year | Orbital Trajectories in Gravity Wells using 3D Printing Technology |



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| S No | Name and year of the course | Title of the Project |
|------|--------------------------------|--|
| 5. | Athira Vijayan, II Year | Orbital Trajectories in Gravity Wells using 3D Printing Technology |
| 6. | Manisha, II Year | Orbital Trajectories in Gravity Wells using 3D Printing Technology |
| 7. | Chinkey, II Year | Orbital Trajectories in Gravity Wells using 3D Printing Technology |
| 8. | Khushboo Gupta, I Year | A Prototype of the Smart Quadcopter Drone |
| 9. | Nikita Gahlawat, I Year | A Prototype of the Smart Quadcopter Drone |
| 10. | Bharti, I Year | A Prototype of the Smart Quadcopter Drone |
| 11. | Ashi Jain, I Year | A Prototype of the Smart Quadcopter Drone |
| 12. | Komal Verma, I Year | A Prototype of the Smart Quadcopter Drone |
| 13. | Sonam, I Year | Arduino based Automatic Car Parking System |
| 14. | Anu Verma, I Year | Arduino based Automatic Car Parking System |
| 15. | Komal, I Year | Arduino based Automatic Car Parking System |
| 16. | Ananya Kumari, II Year | Arduino programmed Self-balancing Robot |
| 17. | Khushbu, II Year | Arduino programmed Self-balancing Robot |
| 18. | Isha, II Year | Arduino programmed Self-balancing Robot |
| 19. | Anukool Yadav, II Year | Arduino programmed Self-balancing Robot |
| 20. | Ningthanpuilu Thaimai, II Year | Arduino programmed Self-balancing Robot |
| 21. | Shubhangi, II Year | QUARKNET: Detection of cosmic ray muons and time correlation analysis |
| 22. | Srishty Aggarwal, III Year | QUARKNET: Detection of cosmic ray muons and time correlation analysis |
| 23. | Rajdeep Kaur, II Year | QUARKNET: Detection of cosmic ray muons and time correlation analysis |
| 24. | Bhawna, II Year | QUARKNET: Detection of cosmic ray muons and time correlation analysis |
| 25. | Aparna | Buildind a Cloud Chamber |
| 26. | Sunita Khod, II Year | Buildind a Cloud Chamber |



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A.2.2

Following students participated in summer workshops held in various research institutions

27.

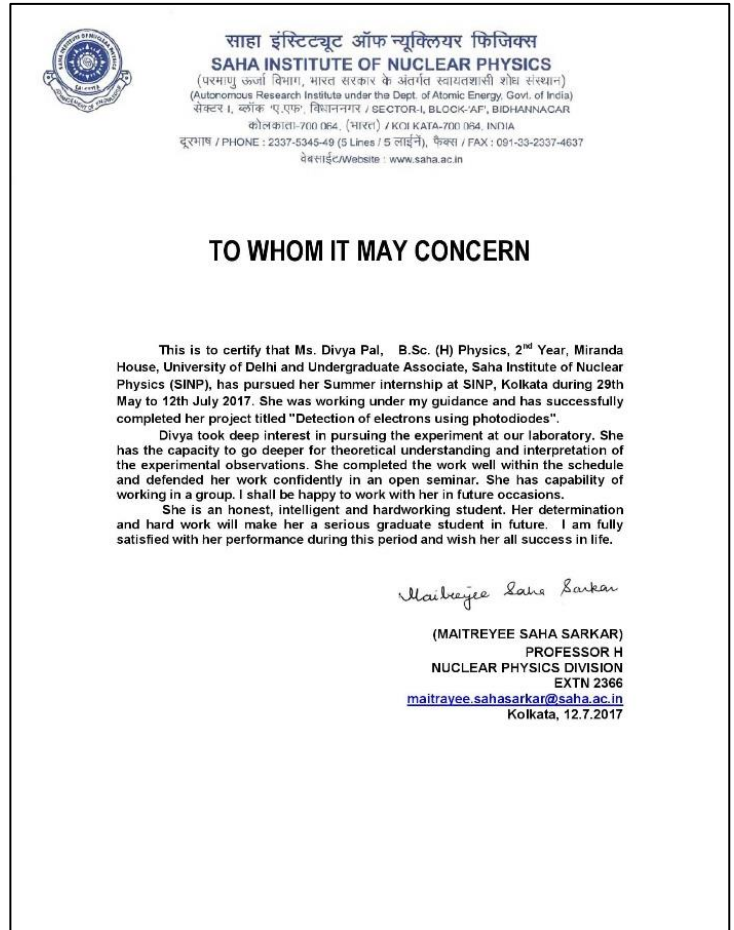
Divya Pal, BSc (Hons) Physics, IV Semester

Title: Detection of electrons using photodiodes

Period: July 2017

Institution: Saha Institute of Nuclear Physics,
Kolkata

Supervisor: Professor (Retired) Dr. Maitreyee
Saha Sarkar



28.

Keshvi Tuteja, B.Sc. (Hons) Physics, II Semester

Kathmandu Astrophysics School:
Expansion History in Λ CDM Model of the
Universe

Year: June 2018

Highlights: Worked on a project related to
expansion History in Λ CDM Model of the
Universe. Friedmann's equation was solved
numerically to find the nature of scale
factor with time. Also studied Monte Carlo
methods of simulations for predicting





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outcomes of the problems in Astrophysics. (Also, won the best project prize.)

29.

Kirti Bhatia, BSc (Hons) Physics, II Semester

Summer Camp: Exposure cum Nature Camp in Physics, NIUS

Period: 7.6.2018 to 16.6.2018

Institution: HBCSE, TIFR



Total number of students undertaking project work/field work/internship (beyond the requirements of coursework): 29