



Miranda House
UNIVERSITY OF DELHI

**DS Kothari Centre for Research and Innovation in
Science Education**

Summer Workshop 2016

**Flavour of Research:
Investigative Projects in Multidisciplinary Contexts**

	<p>MIRANDA HOUSE University of Delhi</p>	
	<p>Flavour of Research Investigative Projects in Multidisciplinary Contexts</p>	
	<p>Summer Workshop (1 June – July 2016)</p>	
	<p>Orientation Program</p>	
	<p>Date: 1 June 2016 Physics Lab I 10:00 a.m.</p>	

Summer Workshop 2016

Flavour of Research: Investigative Projects in Multidisciplinary Contexts

Every year DS Kothari Centre for Research and Innovation in Science Education, Miranda House holds 6-weeks long Summer Workshop as an extension activity. Summer Workshop brings opportunity to hundreds of students to get an exposure to the field of research and focuses on hands-on experience. It aims at following learning outcomes: (i) independent thinking, (ii) habit of regular library work and (iii) ability to work cohesively within a group.

The Summer Workshop 2016 was held from 1 June to 16 July 2016 this year. 95 students successfully completed their projects. Twenty faculty from four science departments of Miranda House participated in the Summer Workshop and guided 24 Summer Projects.

Projects under Summer Workshop 2016

Project 1

Title: Savant Stick

Shubham Khokhar, B.Sc. (Hons) Physics, II Semester, Kirori Mal College

Vipul Mishra, B.Sc. (Hons) Physics, II Semester, Kirori Mal College

Manjeet, B.Sc. (Hons) Physics, II Semester, Miranda House

Ayekpam Malemnganbi, B.Sc. (Hons) Physics, II Semester, Miranda House

Arti Konjengbam, B.Sc. (Hons) Physics, II Semester, Miranda House

Project 2

Title: Wilson Cloud Chamber and Data Analysis from Quarknet

Simran Malik, B.Sc. (Hons) Physics, IV Semester, Miranda House

Shefali, B.Sc. (Hons) Physics, II Semester, Miranda House

Swayamsiddha Joshi, B.Sc. (Hons) Physics, II Semester, Miranda House

Amom Lanchenbi Chanu, B.Sc. (Hons) Physics, II Semester, Miranda House

Jyoti, B.Sc. (Hons) Physics, II Semester, Miranda House

Aashna Gupta, B.Sc. (Hons) Physics, II Semester, Miranda House

Project 3

Title: Arduino

Nisha Kumari, M.Sc. Physics, IV Semester, Banasthali Vidyapith

Shalini Dubey, M.Sc. Physics IV Semester, Banasthali Vidyapith

Project 4

Title: Arduino Bluetooth RC Car

Abhishek Pandey, B.Tech. Electronic & Communication, II Semester, Northen India Engineering College

Richa Sharma, B.Sc. (Hons) Physics, II Semester, Miranda House

Sakshi Jain, B.Sc. (Hons) Physics, II Semester, Miranda House

Project 5

Title: Card Board Piano

Nishtha, B.Sc. (Hons) Physics, II Semester, Miranda House

Manisha, B.Sc. (Hons) Physics, II Semester, Miranda House
Jyoti Rani, B.Sc. (Hons) Physics, II Semester, Miranda House
Nupur Patel, B.Sc. (Hons) Physics, II Semester, Miranda House
Kanchan Pandey, B.Sc. (Hons) Physics, II Semester, Miranda House
Abhishek, Senior Secondary, the Cambridge International School

Project 6

Title: Mobile Phone Detector

Neeru Yadav, B.Sc. (Hons) Physics, II Semester, Miranda House
Vaibhav Budhalani, B.Tech. (ECE), II Semester, Maharaja Surajmal Institute of Technology
Pramod Verma, B.Tech. (Mechanical), II Semester, Jamia Millia Islamia

Project 7

Title: White Line Follower with Gripper: Robotics

Deepali Shukla, B.Sc. (Hons) Physics, II Semester, Miranda House
Mahima, B.Sc. (Hons) Physics, II Semester, Miranda House
Nishi Sharma, B.Sc. (Hons) Physics, II Semester, Miranda House
Avantika Gautam, B.Sc. (Hons) Physics, II Semester, Miranda House
Kritika Sharma, B.Sc. (Hons) Physics, II Semester, Miranda House

Project 8

Title: Application of Natural Dyes on Different Textile Materials through sustainable processes

Sparsh Gupta, B.Sc. (Hons) Zoology, IV Semester, Amity University

Project 9

Title: Application of Bioactive compounds derived from Triphala and Clove for Antimicrobial Finishing of Cotton

Rashim Malhotra, B.Sc. (Hons) Zoology, IV Semester, Miranda House
Sandipana Chakraborty, B.Sc. (Hons) Zoology, IV Semester, Miranda House
Pooja, B.Sc. (Hons) Zoology, IV Semester, Gargi College

Project 10

Title: Use of Plant-based Dyes for imparting colour to Hand-made Paper: An Eco-friendly Approach

Arshia Bhat, B.Sc. (Hons) Zoology, II Semester, Miranda House
Bhavya Sirohi, B.Sc. (Hons) Zoology, II Semester, Miranda House
Avni Gupta, B.Sc. (Hons) Zoology, II Semester, Miranda House

Project 11

Title: Protein Sequence Analysis of DOSR Regulon in different Mycobacterium tuberculosis Strain

Ekta Dagar, Department of Biotechnology & Bioscience, IV Semester, Banasthali University
Mansi Singh, B.Sc. Programme, IV Semester, Kirorimal College
Divya, B.Sc. Life Sciences, IV Semester, Deshbandhu College
Rakhi Sharma, B.Sc. Life Sciences, IV Semester, Deshbandhu College
Laxmi Mishra, B.Sc. (Hons) Zoology, IV Semester, Gargi College
Sarika Bhati, B.Sc. (Hons) Zoology, IV Semester, Gargi College

Prgya, M.Sc. in Biomedical Science, II Semester, Dr. B.R. Ambedkar Centre for Biomedical Research

Sonika Bhatnagar, M.Sc. in Biomedical Science, IV Semester, Dr. B.R. Ambedkar Centre for Biomedical Research

Project 12

Title: (i) Soil Analysis from Pesticide Contaminated Fields (NCR).

(ii) Metagenomics Characterization of microbial diversity from pesticide contaminated Soils.

Payal, B.Sc. (Hons) Zoology, VI Semester, Miranda House

Sunidhi Chauhan, B.Sc. (Hons) Zoology, VI Semester, Miranda House

Aishwarya Khare, B.Sc. (Hons) Zoology, VI Semester, Miranda House

Pooja Jangra, B.Sc. (Hons) Microbiology, VI Semester, BCAS

Komal, B.Sc. Life Sciences, VI, Miranda House

Vivek, B.Sc. (Hons) Zoology, IV Semester, Hindu College

Project 13

Title: To Study the Effect of Henna Extract on the Biofilm Formation

Vidhi Yadav, B.Sc. (Hons) Zoology, II Semester, Miranda House

Niharika, B.Sc. (Hons) Zoology, II Semester, Miranda House

Sakshi Sharma, B.Sc. (Hons) Zoology, II Semester, Miranda House

Nupur Vimal, B.Sc. (Hons) Zoology, II Semester, Miranda House

Project 14

Title: A Study on Pollar Grains

Rashmi, B.Sc. Life Sciences, II Semester, Miranda House

Prabha, B.Sc. (Hons) Botany, IV Semester, Daulat Ram College

Richa, B.Sc. (Hons) Botany, II Semester, Kirori Mal College

Bushra, B.Sc. (Hons) Botany, IV Semester, Gargi College

Manmeet Singh, B.Sc. (Hons) Botany, II Semester, Hansraj College

Project 15

Title: Algal Culture Techniques and Extraction of AGAR and Carrageenan Eroh Important Seaweeds

Snehlata, B.Sc. Life Sciences, II Semester, Daulat Ram College

Neha Yadav, B.Sc. Life Sciences, II Semester, Daulat Ram College

Project 16

Title: Synthesis and Characterisation of Green copper Nanoparticles

Puneet Gola, B.Sc. (Hons) Chemistry, VI Semester, Shyamlal College

Priyanshi Verma, B.Sc. (Hons) Chemistry, II Semester, Miranda House

Nishtha, B.Sc. (Hons) Chemistry, II Semester, Miranda House

Project 18

Title: Microwave Assisted synthesis of Osazones of some sugars

Rishabh Kumar, B.Sc. Physical Sciences, II Semester, Shyamlal College

Aditya Nagaich, B.Sc. (Hons) Chemistry, VI Semester, Shyamlal College

Ishu Sharma, B.Sc. (Hons) Chemistry, VI Semester, Shyamlal College

Ashi Jain, B.Sc. Physical Sciences IV Semester, Shyamlal College
Sourabh, B.Sc. Physical Sciences, IV Semester, Shyamlal College

Project 19

Title: Green Synthesis of iron nanoparticles and their Characterisation

Anushka Rastogi, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Samridhi Bajaj, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Anju, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Megha Pant, B.Sc. (Hons) Chemistry, II Semester, Miranda House

Project 20

Title: Green Synthesis of Zinc nanoparticles and their Characterisation

Ekta, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Divya Mahajan, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Deeksha, B.Sc. (Hons) Chemistry, II Semester, Miranda House

Project 21

Title: Synthesis of Zinc oxide nanoparticles and their Characterisation

Anandita, B.Sc. (Hons) Chemistry, IV Semester, Miranda House
Simran, B.Sc. (Hons) Chemistry, IV Semester, Punjab University Chandigarh
Manisha, B.Sc. (Hons) Chemistry, IV Semester, Miranda House
Shruti, B.Sc. (Hons) Chemistry, IV Semester, Miranda House

Project 22

Title: Design of an affordable Polarimeter

Sana Mehta, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Harshita, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Dishendra, B.Sc. Computer Sciences, II Semester, Shaheed Sukhdev College of Business Studies, DU
Aakansha, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Khushboo, B.Sc. (Hons) Chemistry, II Semester, Miranda House
Aashi Tayal, B.Sc. (Hons) Chemistry, II Semester, Miranda House

Project 23

Title: Synthesis and Characterization of Carbon Nano-Particles

Manisha, B.Sc. (Hons) Physics, IV Semester, Miranda House
Manisha Dabla, B.Sc. (Hons) Physics, IV Semester, Miranda House

Project 24

Title: Projection interfacing various Sensors with Aurdino

Preeti Malik	NITR
Neha Roze	NITR
Rekha Rani	D.A.V. College Chandigarh

Teacher Mentors

Botany Department

Dr. Janaki Subramanyan
Dr. Saloni Bahri
Dr. Elangbam Geetanjali
Dr. Rashmi Shakya
Dr. Richa Misra

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Dr. Mallika Verma
Dr. Jaswant Yadav
Dr. Monika Tomar
Dr. S.N. Sandhya
Dr. Geeta Ray

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Dr. Bani Roy
Dr. Mallika Pathak
Dr. Sharda Mahilkar Sonkar
Dr. Malti Sharma
Dr. Kalawati Saini

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Dr. Jyoti Arora
Dr. Sadhana Sharma
Dr. Monika Sharma
Dr. Simran Jit

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Mr. Satish Chander Bhardwaj
Mr. Binod Kumar Mahto
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Mr. Jay Prakash
Mr. Vinod Kumar
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Mr. Vikash Kaner
Mr. Shashi Mohan Shah
Mr. Rajender Kumar
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Mr. Rakesh Kumar
Mr. Sanjay Dutt
Mr. Mukesh Manik
Mr. Uday Chaudhary
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Dr. Pratibha Jolly
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Dr. Mallika Verma
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