

# **Departmental Annual Report – 3**

**Departmental Activities: Curriculum and Beyond** 

**Department: Physics** 

**Academic Year:** 2020-2021 (period from 1 July 2020 – 30 June 2021)

**Department Society and its Office Bearers:** 

Vidyut, the Physics Society of Miranda House

Office bearers for the year:

President	Manya M Kumar
Vice president	Arundathi Dev
General secretary	Joshita Sharma
Joint secretary	Gayathri KP
Treasurer	Krishnapriya KS

## **Staff Advisors:**

Dr. Mallika Verma, Dr. Abha Dev Habib and Professor Monika Tomar



#### Part B.1

## Seminars/conferences/workshops conducted by the Department

A webinar "Nuts and Bolts of being an Experimental Physicist" by Dr Bernadette Rebeiro, Research fellow, France and Dr Neeraj Kumar, Senior Research Fellow at Department of Physics and Astrophysics, DU was held on 11 November 2020.

No of participants: 70





The Physics Society organised a webinar "Black Holes – the Ultimate Chakravyuh" by Professor Patrick Das Gupta, Department of Physics and Astrophysics, University of Delhi on 18 November 2020. The talk was followed by a discussion session. No of participants: 120. Many students and research students from other institutions also joined.



Baseline Science Test 2021 for Physics was held on 20 February 2021 under the aegis of DS Kothari Centre. It was held in the offline mode. 11 students appeared for the written test. A presentation round was scheduled for 1 July 2021 to select the winner and runner-up, Science Award 2019-20.

On the occasion of Women's Day, Vidyut in collaboration with Robotics Society (Robsoc), Computer Science Society (Compuada) and Mathematics Society (Sankhya) conducted a webinar Vistas on 8 March 2021 to celebrate work of some eminent women scientists. The panellists included (i) Professor Sanghamitra Mohanty, President of Odisha Academy under the Government of Odisha, Bhubaneswar (ii) Professor Prajval Shastri, Professor, Indian Institute of Astrophysics and (iii) Professor Sujatha Ramdorai, School of Mathematics, Tata Institute of Fundamental Research, Mumbai. Over 90 students Physics, Mathematics and Computer Science attended

this webinar.





AbhaDev Habib <abhadev.habib@mirandahouse.ac.in>

#### Baseline test 2021

Mallika Verma <mallika.verma@mirandahouse.ac.in> Tue, Feb 2, 2021 at 3:27 PM To: Physics Society <vidyut physics@mirandahouse.ac.in>, Manya M Kumar <manyanari2001@gmail.com>
Cc: Rashmi Rakshit <rashmi.rakshit@mirandahouse.ac.in>, "AbhaDev. Habib"

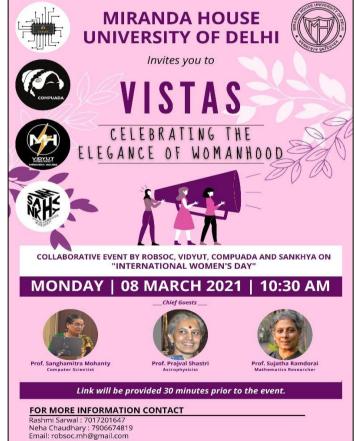
- <abhadev.habib@mirandahouse.ac.in>, Monika Tomar <Monika.Tomar@mirandahouse.ac.in>

Dear office Bearers and CR's

We are conducting the Baseline Science Test 2021 in offline mode for the interested science students on 20 February 2021. There will be no registration fee this year. Please inform students to give in their names for the same latest by 10 February

The format for the test will be same as before which is (i) MCQ and (ii) Numerical and concept based questions

Looking forward to a vibrant participation





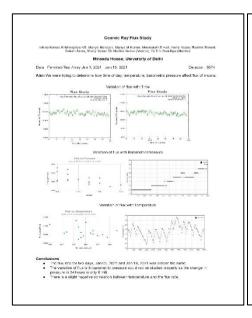
## QUARKNET INTERNATIONAL MUON WEEK MARCH 8-12, 2021

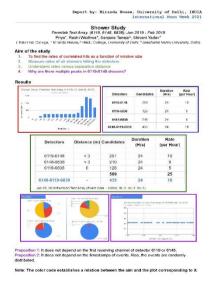


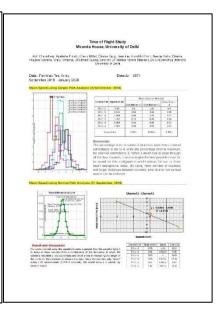
Experiments using cosmic ray muons and sharing results with others around the world.

## **QuarkNet: International Muon Week**

As part of worldwide Cosmic Ray Flux Study, **QuarkNet International Muon Week 2021** was organized from 8 March to 12 March 2021 in association with DS Kothari Centre, Fermi Lab and QuarkNet, India. 32 students of the Department participated in this international event and shared their data and research.











The Physics Society organised a webinar "Mimicking active matter in the laboratory" by Ms Pragya Arora on 11 March 2021 as part of the series where former students come to share their research work and journey.

Ms Pragya Arora, is an alumna of the Physics Department, Miranda House who is currently pursuing her PhD from Jawaharlal Nehru Centre for Advanced Research, Bangalore. It was really inspiring for all the students to learn more about their seniors who are currently pursuing their dreams in reputed institutes both in India and abroad.

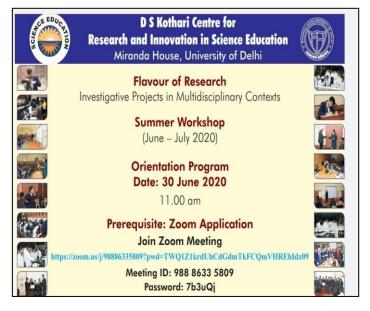
No of participants: 60

Part B.2

## **Extension Activities organized**

Summer Workshop for Undergraduate Science Students, Flavor of Research: Investigative Projects in Multidisciplinary Contexts held at the D. S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, 30 June – 9 August 2020.

Participation: 123 undergraduate Physics students from across institutions enrolled for the Summer Workshop and successfully completed their projects. 12 faculty members of the Physics Department guided 30 projects. Amongst students, 104 were from BSc (Hons) Physics. Vidyut coordinated the **Summer Workshop 2020**.



For info on DSKC Summer Workshop 2020 see:

 $\frac{https://mirandahouse.ac.in/uploads/dskc/summerworkshop/2020\%20DSKC\%20Summer\%20Workshop\%20Report.pdf}{}$ 



#### Part B.3

Other events organized as part of students' activities (not listed above)



#### Farewell for the Batch 2017-2020

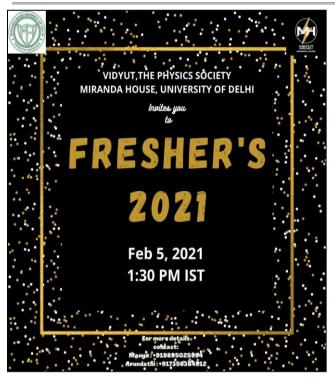
Vidyut organised Farewell was organised for the batch 2017-2020 on 25.7.2020. It was held in a virtual mode. The juniors, presented dances, songs and instrumental music to our seniors. They also shared their experience of 3 years in the Department and had a heart-to-heart talk with teachers.

## **Quiz Series**

Every weekend in the months of October and November, Vidyut organised online quizzes on various interesting topics related to physics like astrophysics, bio-physics, nuclear physics etc. Every session saw close to 45 -50 students. Over 90 students participated in the series.







#### Freshers' Welcome for the batch 2020-2023

Freshers' welcome was organised for the first years along with an ice breaking session on 5 February 2021. They also interacted with each other. Various cultural programs were presented by the seniors and various competitions for titles were conducted for them.

## The Annual Physics Fest 2021, Volt

The annual physics fest -VOLT 2021 was organized in online mode. The Physics Society arranged a series of competitions. Winners of each competition were selected and will be provided with an e-certificate and cash prizes. Events were open to students of other institutions also. Over 200 students participated in these competitions.

## **Competitions Organised:**

## **Quiz Series**

15 March 2021; Topic: Astrophysics

No of participants:79

16 March 2021; Topic: Nuclear and Particle Physics

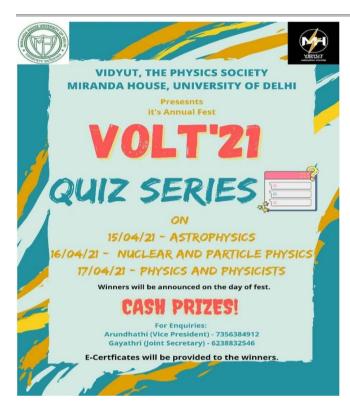
No of participants: 60

17 march 2021; Topic: Physics and Physicist

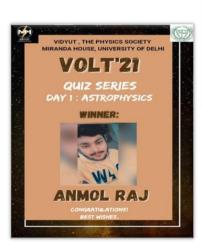
No of participants: 65

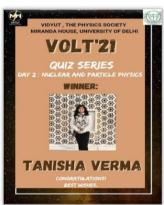


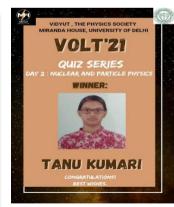


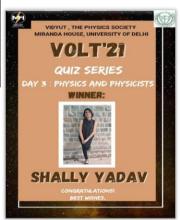
















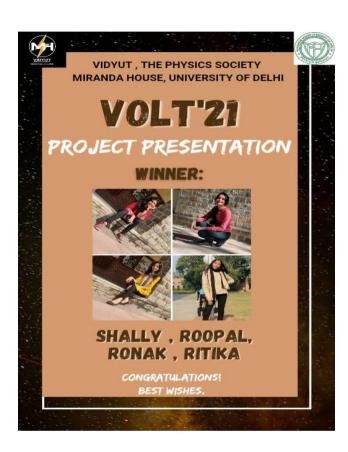








Project presentation competition (Tinker-cad projects were also allowed)









## Farewell to Dr Mallika Verma

On 31 May 2021, Vidyut organized an online farewell party to felicitate Dr Mallika Verma, who has been the backbone of the Physics Department for more than 30 years. It was a small expression of Gratitude from our side to one of our most supportive teachers. Former students who had worked on their project under Dr Mallika Verma also attended the programme.



