



Miranda House

UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Physics

Year: 2019 – 2020 (from 1.7.2019 to 30.6.2020)

Department Society and its Office Bearers:

President	Vice President	General Secretary	Joint Secretary	Treasurer
Manya Sinha	Jagrati	Apeksha Pundir	Kajal	Nancy

Staff Advisors:

Dr Abha Dev Habib

Dr Bilasini Devi Naorem

Dr Monika Tomar



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Part B.1

Seminars/conferences/workshops conducted by the Department

Vidyut conducted a two day workshop on 'Programming with Python', in which Shreya Kapoor, an alumna of the department, taught the students tips and tricks of Python. She is currently pursuing her Master's in 'Life Science in Informatics' from BIT center, University of BONN, Germany.

No. of participants: 40

VIDYUT, THE PHYSICS SOCIETY BRINGS TO YOU A
TWO DAY HANDS-ON WORKSHOP ON

PROGRAMMING WITH PYTHON

SPEAKER- SHREYA KAPOOR
M.Sc LIFE SCIENCE INFORMATICS,
B-IT CENTER, UNIVERSITY OF BONN, GERMANY

DATE: 4th and 5th SEPTEMBER 2019
TIME: 2-4 PM
For queries contact: MANYA SINHA (PRESIDENT, VIDYUT);
91+9136122394

VIDYUT-PHYSICS SOCIETY OF MIRANDA HOUSE
PRESENTS

"WaterScope - Democratising Drinking Water Testing" : A Hands-on workshop

SPEAKERS



Dr Alicja Dabrowska
Research Associate, Department of Physics and Veterinary Medicine



Dr Darshana Joshi
Co-Founder, VigyanShala International

DATE: 19TH SEPTEMBER ; TIME: 10AM-1 PM

 WaterScope  VIGYANShala  UNIVERSITY OF CAMBRIDGE
Making STEM Inclusive & Accessible

Waterscope - Democratising Drinking Water Testing (19 September, 2019)

Vidyut organized a hands-on workshop on drinking water testing which was conducted by **Dr. Alicja Dabrowska**, Research Associate, Department of Physics and Veterinary medicines and **Dr. Darshana Joshi**, Co-founder, VigyanShala International.

No. of participants: 60





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VIDYUT- The Physics Department of
Miranda House presents

HANDS-ON WORKSHOP ON ARDUINO UNO AND MICROCONTROLLERS

DATE: 16th JAN 2020
DAY: THURSDAY
TIMINGS: 9 AM ONWARDS
VENUE: DSKC LAB, PHYSICS DEPARTMENT
CONDUCTED BY : APEKSHA PUNDIR and MUKTA YADAV



FOR MORE INFORMATION CONTACT:
MANYA: 9136122394
APEKSHA PUNDIR: 9354725558

Workshop on **Introduction to Microcontrollers and Arduino – UNO** (16 January, 2020)

Conducted by **Apeksha Pundir** and **Mukta Yadav**, the hands-on session included mini-tasks based on basics of Arduino - Uno and electronics.

No. of participants: 40

VIDYUT- The Physics Department
of Miranda House presents

A THREE DAY HANDS-ON WORKSHOP ON ARDUINO UNO AND BIOTECHNOLOGY

DATES: 16TH, 18TH AND 19TH
VENUE: PHYSICS DEPARTMENT, MIRANDA HOUSE
TIMINGS: 9AM ONWARDS

Workshop on **Arduino - UNO And Sensor Based Projects** (18 January, 2020)

Workshop conducted by **Chinkey Chachra** and **Himani Sahay**, two gems shaped by our department. They introduced the students to the world of sensors and the exciting projects which can be made with their help.

No. of participants: 40





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Workshop on Biotechnology (19 January, 2020)

Vidyut organized an interdisciplinary hands-on workshop on biotechnology mentored by **Chinkey Chachra** and **Himani Sahay**.


No. of participants: 40

VIDYUT- The Physics Department of
Miranda House presents

HANDS-ON WORKSHOP ON ARDUINO UNO and BIOTECHNOLOGY

DATE: 19th JAN 2020
DAY: SUNDAY
TIMINGS: 9 AM ONWARDS
VENUE: DSKC LAB, PHYSICS DEPARTMENT
CONDUCTED BY : HIMANI and CHINKI

FOR MORE INFORMATION CONTACT:
MANYA: 9136122394
APEKSHA PUNDIR: 9354725558



VIDYUT, THE PHYSICS DEPARTMENT,
MIRANDA HOUSE, UNIVERSITY OF
DELHI PRESENTS :

SEMINAR ON ASTROPHYSICAL SOURCES OF GRAVITATIONAL WAVES

BY: Prof. PATRICK DAS GUPTA
Department of Physics and
Astrophysics, University of Delhi

DATE: 03 FEBRUARY 2020
TIME: 11:30 AM

MANYA: 9136122394
JAGRATI: 9319150902

Seminar on Astrophysical Sources of Gravitational Waves (3 February, 2020)

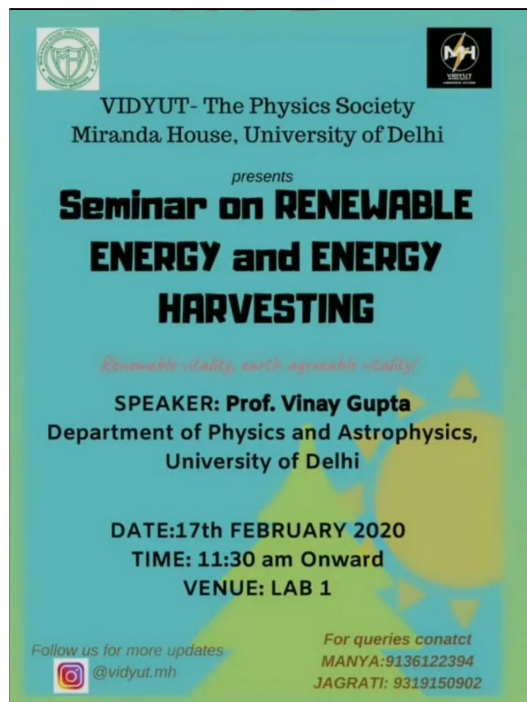
A talk by **Professor Patrick Das Gupta**, Department of Physics and Astrophysics, University of Delhi: a physicist, who is trained in classical music, performs magic and writes stories! He introduced students to the field of Astrophysics - full with wonders, being detected by the help of Gravitational Waves.

No. of participants: 80





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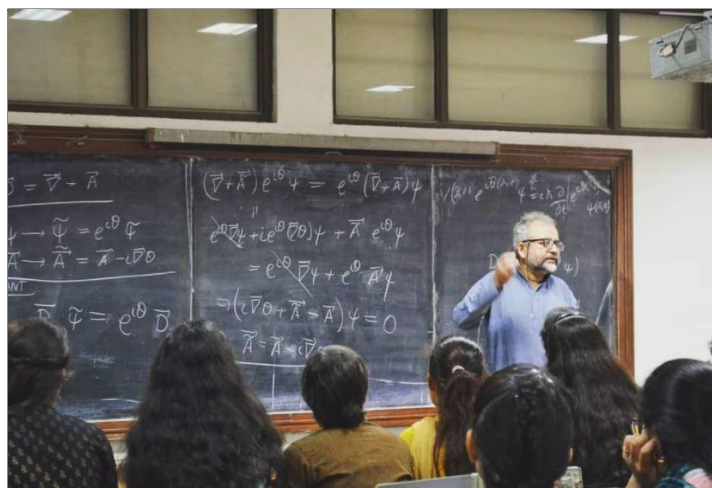
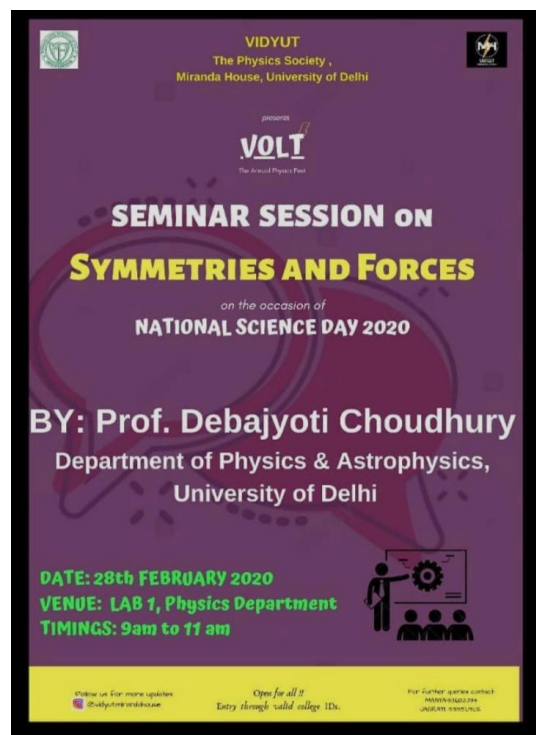
Seminar On **Renewable Energy and Energy Harvesting** (17 February, 2020)

A seminar was held by **Prof. Vinay Gupta**, Department of Physics and Astrophysics, University of Delhi. Professor Vinay introduced the participants to the concept of renewable energy. He talked in detail about the types of renewable energies and how harnessing their power will prove beneficial for us. He also gave a brief introduction to the work being carried on in his lab.

No. of participants: 80

A seminar on **Symmetries and Forces** was organized by Vidyut on the occasion of National Science Day, 28th February, 2020. The resource person for the event was **Professor Debajyoti Choudhary**, Department of Physics and Astrophysics, University of Delhi.

No. of participants: 80





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VIDYUT, The Physics Society
Miranda House, University of Delhi
presents
Live Webinar
on
**Introduction to Radiometry
and Photometry**
by
Dr. Shibu Saha
Scientist, Optical Radiation Metrology Section
Assistant Professor, Academy of Scientific and
Innovative Research (AcSIR),
National Physical Laboratory

9th May 2020, Saturday
10:30 AM onwards
Prerequisites: Zoom Application
To join, click:
<https://zoom.us/j/98903751595?pwd=bGhWVjEsRFNGdHV4ZGNYcTJOdUNyZz09>
Password: 4K7RSt
Webinar ID: 989 0375 1595
Password: 122420
E- Certificates will be provided.
@vidyut.mirandahouse For further queries, contact
Jagrati : +91 93191 50902

A webinar on **An introduction to Radiometry and photometry** was organized by Vidyut on 9th May, 2020. The resource person for the event was **Dr. Shibu Saha**, National Physics Laboratory.

No. of participants: 127

A webinar on **Quantum Computing** was organized by Vidyut on 16th May, 2020. The resource person for the event was **Dr. Poornendu Chaturvedi**, DRDO.

No. of participants: 80

VIDYUT, The Physics Society
Miranda House, University of Delhi
presents
Live Webinar
on
QUANTUM COMPUTING
by
Dr. Poornendu Chaturvedi
Scientist, Solid State Physics Laboratory,
Defence Research & Development Organization

16th May 2020, Saturday
11:00 AM onwards
Prerequisites: Google Meet Application
To join, click:
<https://meet.google.com/bzz-hrfs-ffr>
E- Certificates will be provided.
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VIDYUT, THE PHYSICS SOCIETY
MIRANDA HOUSE, UNIVERSITY OF DELHI

presents

LIVE WEBINAR

on

INTRODUCTION TO ASTRONOMY AND FUTURE CAREER OPPORTUNITIES

by

Dr. Sonal Thorve
Science Outreach Personnel,
IUCAA PUNE

**24 MAY 2020, SUNDAY
11 A.M. ONWARDS**

Prerequisites: Zoom application
To join, Click : <https://zoom.us/j/94805336905?pwd=c2JTMlpuTzN5a0sxcHhuWDFLaVZKUT09>

@vidyut_mirandahouse for further queries ,contact Jagrati : +91 9319150902

A webinar on **Introduction to Astronomy with current developments and future career opportunities** was organized by Vidyut on 24th May, 2020. The resource person for the event was **Dr. Sonal Thorve**, IUCAA.

No. of participants: 90

A webinar on **Building the hardware for a quantum computer** was organized by Vidyut on 23th May, 2020. The resource person for the event was **Sonali Gera**, Former student, Miranda House, currently pursuing her PhD from Stony Brook University, New York.

No. of participants: 90

Vidyut, The Physics Society
Miranda House, University of Delhi

Presents

Live Webinar

on

Building Hardware for a Quantum Computer

by

Ms. Sonali Gera
Alumini, Miranda House
Currently enrolled in PhD
at Stony Brook University,
New York

Prerequisites : Zoom Application
TO JOIN, REGISTER AT :
[HTTPS://ZOOM.US/WEBINAR/REGISTER/WN_M7B8XGC5TCIG93AWVU0SRA](https://zoom.us/join/9319150902)

**23 May 2020, Saturday
10 a.m. onwards**

@vidyut_mirandahouse For further queries ,contact Jagrati : +91 9319150902



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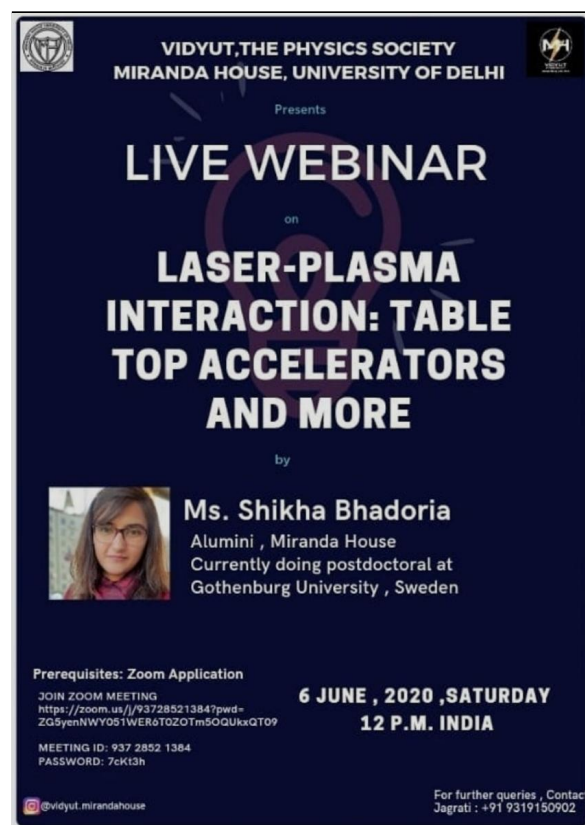


A webinar on **Glass and Thin films on Glass for Energy Efficiency** was organized by Vidyut on 29th May, 2020. The resource person for the event was **Dr. Ashutosh Ganjoo**, R&D Lead in New Technology Initiative Groups, USA.

No. of participants: 70

A webinar on **Laser-Plasma Interaction: Table Top Accelerators** was organized by Vidyut on 6th June, 2020. The resource person for the event was **Dr. Shikha Badoria**, Former student, Miranda House, currently pursuing her Post-Doc at Gothenburg University, Sweden.

No. of participants: 80





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VIDYUT, THE PHYSICS SOCIETY
MIRANDA HOUSE, UNIVERSITY OF DELHI

Presents

LIVE WEBINAR

on

DYNAMICS OF EXTRATROPICAL CYCLONES IN A WATERWORLD

by

MS. PRAGALLAVA
Alumini, Miranda House
Currently enrolled in PhD at
University of Chicago

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JUN 13, 2020
11:00 AM INDIA

Prerequisites: Zoom Application

Join Zoom Meeting
<https://zoom.us/j/96531905349?pwd=bmduS1RUcEN5WE9qMUcyNmpmY2JGZz09>

Meeting ID: 965 3190 5349
Password: 0cXYSB

@vidyut.mirandahouse

For further queries, contact
Jagrati : +91 9319150902

A webinar on **Dynamics of Extratropical Cyclones in a Waterworld** was organized by Vidyut on 13th May, 2020. The resource person for the event was **Ms. Pragallva**, Former student, Miranda House, currently pursuing her PhD from University of Chicago.

No. of participants: 80

A webinar on **Exploring the Transient Radio Sky with the CHIME Telescope** was organized by Vidyut on 25th May, 2020. The resource person for the event was **Dr. Pragya Chawla**, Former student, Miranda House, currently pursuing her postdoctoral from University of Amsterdam, Netherlands.

No. of participants: 80

VIDYUT, THE PHYSICS SOCIETY
MIRANDA HOUSE, UNIVERSITY OF DELHI

presents

LIVE WEBINAR

on

EXPLORING THE TRANSIENT RADIO SKY WITH THE CHIME TELESCOPE

by

Ms. Pragya Chawla
Alumini Miranda House,
Currently enrolled in PhD at
McGill University in Canada

**25TH JUNE 2020 ,
10 AM ONWARDS**

Prerequisites: Zoom application

Join Zoom Meeting :
<https://zoom.us/j/95249915386?pwd=THFtMjJDUmY5OTJlMVRtanNkMGpMdz09>

Meeting ID : 952 4991 5386
Password : 5t3Jm2

@vidyut.mirandahouse

for further queries ,contact
Jagrati : +91 9319150902



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Part B.2

Extension Activities organized

Under the aegis of **DS Kothari Centre, Physics Baseline Test** was held on 27 September 2019 for the undergraduate Miranda House students. The top three students were qualified for a presentation round required for the Science award.

A total of 29 students appeared for the test.

D.S. Kothari Central
Inter-disciplinary Research Facility (DSKC)
Miranda House, University of Delhi

Conducts
BASELINE TESTS 2019-'20
In September 2019

<p>12 September Chemistry</p> <p>25 September Mathematical Sciences</p>	<p>18 September Biology</p> <p>27 September Physics</p>	<p>20 September Earth Sciences</p>
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Time: 3:30 pm to 4:30 pm
Venue: Room no. 145 (or as announced one day before test)
Attractive cash prizes for top three in each test

The 15 short-listed candidates to make
PowerPoint presentations (8 min + 2 min interjection)
on a contemporary topic of inter-disciplinary nature

The winner will get the prestigious
Science Award 2019-'20
Cash prize of Rs. 2000

Eligibility
UG, II, III Year student of
any course in Miranda House

Format of Tests
40 Multiple Choice Questions
2 Concept based Questions
2 Numerical Problems

Last Date for submitting Entry Forms: 9 September 2019
Entry fee: Rs. 100 per student per subject.
Forms available with Shri Ravi Kumar, Room no. 143, Science Block

MIRANDA HOUSE
University of Delhi

Flavour of Research
Investigative Projects in
Multidisciplinary Contexts

Summer Workshop
(June – July 2019)

Orientation Program
Date: 3 June 2019
Physics Lab 1 (261)
10:00 am

Registration
Time: 9:00 am

Registration Fee
Rs.500

Summer Workshop for Undergraduate Science Students, Flavor of Research: Investigative Project in Multidisciplinary Contexts held at the D. S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, June –July 2019.

No. of participants: 39



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Ice - Breaking Session 2019-2020 (21 August, 2019)

Beginning of the year saw new additions to our lovely family of Physicists. Faces were beaming with enthusiasm and intrigue over what new advancements they will make in this new territory. To satisfy their curiosity on issues ranging from academics to extracurricular pursuits, an ice breaking session was held by the Council, wherein the first years mingled readily with their seniors.

Fresher's Party - "The Dark Ages" (23 August, 2019)

Continuing with the fun tradition of the college, the entire department enjoyed an afternoon of games and music on account of the Fresher's Party-2k19. The air was charged with excitement as students danced their hearts out on groovy beats. With this the new-comers formally became a part of the Vidyut family.





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The department students organized a **Teachers day celebration** on 5th September, 2019. Vidyut organized a small celebration for the anchors of our lives. The contribution being made by the integral part of not only our department, but also our educational upbringing, was acknowledged by a show of gratitude in the cake cutting ceremony.



Onella'19 - Ethnic Day (22 October, 2019)

The department observed Ethnic Day on 22 October, 2019 when students flaunted their best ethnic attires and smiles to get clicked in a memorable department photograph.





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Vigyaan Samagam - TMT Week(6 February, 2020)

Vidyut organised a trip to Vigyaan Samagam, India's mega Science Exhibition at **National Science Center, Delhi**. The students learned in depth about the Thirty Meter Telescope being built by international consortia of scientific institutes and organizations in Canada, China, India, Japan and the USA.



Vigyaan Samagam - LIGO Week (20 February, 2020)

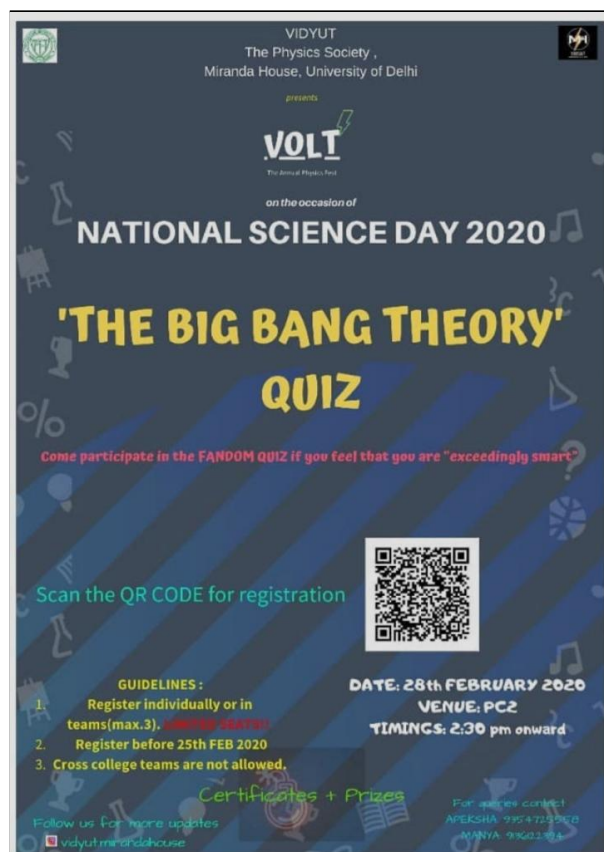
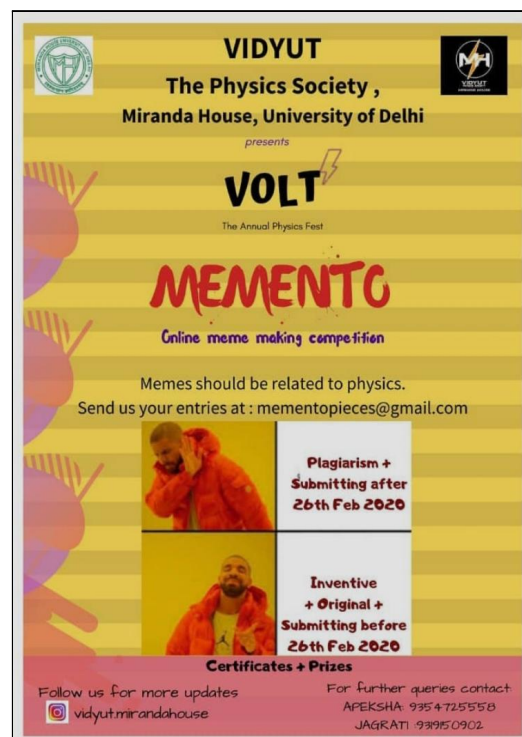
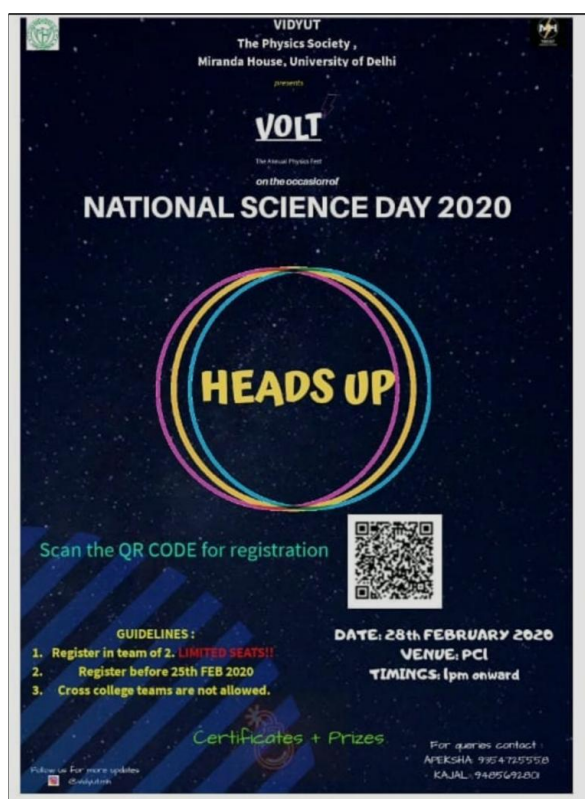
Another trip to Vigyan Samagam was arranged by Vidyut for the interested students in **LIGO** week. Students were made aware about LIGO-India, an ongoing enterprise to set up a new gravitational detector on Indian soil.



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The department fest “VOLT” was organized by Vidyut on 28th February, 2020. The fest included poster presentations, guest lectures, and other competitions.

No. of participants: 200





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VIDYUT
The Physics Society,
Miranda House, University of Delhi

presents
VOLT
THE ANNUAL PHYSICS FEST

We bring to you an opportunity to test your own REALITIES ! :)

**Online
Sci-Fi Writing
Competition**

Rules:

- Word limit - 1500 words
- Plagiarised works will be disqualified

Deadline : 26th February

Send in your entries at:
scifipieces@gmail.com

Certificates + Prizes

Follow us for more updates
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For queries contact :
APEKSHA: 9954725558
KAJAL: 9485692801

