

TEACHER'S ACTIVITY REPORT : 2019 - 2020

FACULTY: Science

DEPARTMENT/ COMMITTEE: PHYSICS

IQAC ACTIVITY No: SVC/2019-2020/PHYSISCS/ SOC/1

NAME OF THE ACTIVITY : Vistaar (DIY Astroscience Stall, Nano-materials Stall)

DATE	FACULTY	DEPARTMENT/COMMITTEE	COORDINATOR NAME
01 Nov 2019	Science	Sri Venkateswara College Principia Physics Society	Dr. Garima Saxena
TIME	VENUE	NUMBER OF PARTICIPANTS	NATURE : OUT/IN – DOOR
09:30AM – 5:30PM	Auditorium Premises	B.Sc. (Hons) Students Ist +IInd +IIIrd year (65) Faculty : 12	Indoor + Outdoor

Support/Assistance	(1) Sri Venkateswara College, University of Delhi. (2) Department of Biotechnology, Govt. Of India.
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BRIEF INFORMATION ABOUT THE ACTIVITY (CRITERION NO. II, III,

VII):

TOPIC/SUBJECT OF THE ACTIVITY	Introduction of Astroscience and nanomaterials to the physics and non-physics college community.
OBJECTIVES	<p>Students of B.Sc. (Hons) Physics organized an exhibition on Astroscience – Celestial objects, Physical phenomena happening in those object, and models of scientific approach to their study.</p> <p>Main theme of nano-stall was based on sustainable development which mainly hovered around the area of energy harvesting and storage for a better and less polluted future.</p>
METHODOLOGY	<p>Posters, Models, Quizes etc were exhibited/organized. Details informative model of CHANDRAYAN – II, historcal facts etc. were are exhibited.</p> <p>Various posters and quizes on current scientific developments in the field of nano-science were organized to improve on awareness of the college community. Vast coverage of applications of nano-materials in science and technology and their daily applicabilty in society.</p>

OUTCOMES	Students and Faculties of non-physics departments and administrative staff were made aware of many scientific aspects of Astro-science and nano-science.
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PROOFS & DOCUMENTS ATTACHED (Tick mark the proofs attached):

Notice & Letters (Poster) :	Student list of participation	Activity report	Photos : Yes	Feedback Form
Feedback Analysis	News Clip with Details	Certificate	Any Other (Booklet)	

IQAC Document No:	Criterion No:	Metric No:
Departmental file no :	IQAC file No:	

NAME OF TEACHER(S) & SIGNATURE	NAME OF HEAD/ COMMITTEE INCHARGE & SIGNATURE	IQAC COORDINATOR (SEAL & SIGNATURE)
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Dr. Garima Saxena		
Dr. Pratima Vyas	Dr. Pratima Vyas (Teacher-in-Charge) Department of Physics	Dr. N. Latha IQAC Coordinator Sri Venkateswara College

For Reference

Criterion I	Curricular Aspects (Planning & Implementation)	Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation	Criterion VI	Governance
Criterion III	Research, Innovations & Extension	Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure		

Proofs :

* Activity Report

ASTROSCIENCE

- KAMALPREET KAUR, JASMINE KAUR, BHUMIKA TANEJA

Sri Venkateswara College organized an event named 'VISTAAR' on 1st November, 2019 which was a science popularization event sponsored by the Department of Biotechnology, Govt. of India. It was an event organized for the college as well as school students to ignite the curiosity in them on various topics. Honourable judges for the same were Dr. Pratibha Jolly (Former Principal, Miranda House, University of Delhi) and Prof. L.S. Shashidhara, Indian Institute of Science Education and Research (IISER), Pune.

Astro Science as the name suggests is the scientific study of celestial objects and phenomenon that originate outside the Earth's atmosphere. The students of B.Sc Physics (H) organized an exhibition regarding the same. It included posters, models, quizzes and many more things. Informative and attractive posters were made displaying the top 05 Astronomical Discoveries of 21st century. They were as follows:

DO STARS ORBIT MILKY WAY'S BLACK HOLE? (2003)

COSMI MICROWAVE BACKGROUND (2008)

ACCELERATING EXPANSION OF THE UNIVERSE (2011)

FIRST BLACK HOLE IMAGE (2019)

NOBEL PRIZE IN PHYSICS (2019)

CHANDRAYAN II, the name that is on the mouth of every Indian now-a-days worked as a great centre of attraction for the people visiting the stall. There was a proper display regarding every detail about the same starting from how was it launched to the phase of its landing on the moon. To make the session more interactive a projection of CHANDRAYAN II was also played.

Everyone wants to know what a particular field can reward them. For that, the students were present there explaining the carrier prospects that one can take up in the field of astronomy and astrophysics. Explanation was done by dividing it into two parts - at National and International level. It includes the following possibilities which are open for career for a physics/mathematics/engineering graduate with a specialization or a PhD in astronomy and astrophysics. Some of the opportunities are that of research scientist, university faculty, jobs in industry, handling data etc. Joint Entrance Screening Test (JEST) provides admission into institutes such as Indian Institute of Astrophysics, Harish Chandr Research Institute etc. Similarly, Joint Astronomy Programme (JAP) is a one year duration course conducted at Indian Institute of Science, Bangalore, jointly by Iisc, IIA, RRI etc.

Various institutes including Delhi University



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provide specialization in Astronomy and Astrophysics. At International level, there are certain admission requirements such as TOEFL, IELTS, Bachelor degree in the field of Science with good grades. Internship/Project in recognized institute or under professor.

Not only this, the visitors were encouraged to show their scientific skills through playing the games regarding the concepts of physics and to display their astro interest by giving answers in the quiz. This interesting activity engaged students into answering questions based on astronomy and space tech using pictures and clue cards. Students were allowed to participate either individually or in teams of two. Each team/ student was given 5 random clue cards and photos. Those who answered more than 3 were felicitated by exciting prizes.

The quiz recorded a huge participation of more than 100 students, including both college and school students. They were rewarded with attractive gifts. The aim was to show the students how fun science can be and encourage them to be curious and knowledgeable on various topics.

It was a fun and learning experience both for the volunteers and the visitors. The seeds of knowledge on the topics of astronomy and astrophysics were planted in the brain of students. The event ended with great pomp and show.

PARTICIPANTS:-

- Shivansh
- Lalit Kumar
- Surbhi Bajaj
- Dipankar Das
- Jasmine Kaur
- Aarushi Rawat
- Aakansha
- Tanul
- Tamanna
- Palak
- Ishita Bahuguna
- Anupama
- Soumyaa
- Bhumika Taneja
- Kamalpreet Kaur

TEACHER INCHARGE:- Ms. Garima Saxena



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DIY

On November 1st 2019, a science popularisation programme was conducted in Sri Venkateswara College exclusively for school students to promote scientific curiosity and temperament. Physics Department students actively took part in organising the various events to be held on that day. One of the events being organised was the DIY- Do It Yourself to lay emphasis on the fact that performing science experiments is not just limited to large institutions but may also be done with easily available items. Students from different science departments were involved in the DIY as 5 different experiments were being performed relating to different branches of science. The college students prepared the sets required for the experiments to be performed on by the school students. All school students were ushered to the auditorium and made to sit in groups and by 9 a.m. the program had begun. The inauguration of the DIY-Lab was done by Dr. Pratibha Jolly (Former Principal, Miranda House, University of Delhi) and Prof. L.S. Shashidhara, IISER, Pune. After a brief speech about evolution by Prof. L.S. Shashidhara, the DIY lab commenced. The first was an experiment to observe the thermal effects of a greenhouse gas. In experiment number 2, they learned how to make their own lava lamps at home using oil, water, some food colouring and an antacid tablet. The students had a lot of fun doing this experiment as they got to see blobs of colour moving about. They were then taught how to isolate the DNA from saliva. The third experiment was a demonstration of total internal reflection. This experiment was designed by Dr. Piyush kumar of the Physics department. Water was kept in a beaker. A laser light when pointed at the air-water interface from below shows both reflection and refraction. The students were quite amazed to see that when the optical density of the water was increased by adding a small quantity of dettol, the laser light when pointed at the interface was now completely reflected. The final experiment was about pH and how to make pH paper at home using red cabbage as the main ingredient. The volunteers demonstrated how different solutions changed colours when the pH solution was added. The students were quite happy to be learning science by performing experiments. Overall, the organisers, students and volunteers had a positive experience during this event.

Riya Baruah
3rd Year



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NANOTECHNOLOGY and its Big Strides

To spread awareness and curiosity among students about the wonders and applicability of science and to keep them up to date with the recent advancements in various emerging scientific fields, VISTAAR, an initiative by Sri Venkateswara College, DU, was organized on 1st November, 2019. The department of Physics was involved in the setup of two major impactful fields, namely the astronomy stall and the nano stall. The main theme of the Nano stall was based on sustainable development which mainly hovered around the area of energy harvesting and storage for a better and less polluted future. What nanotech does is that it tries to enhance the already existing technologies using the varied properties at the nanoscale, where properties of even familiar materials look strikingly different. The energy based theme was the primary concern for the fact that harnessing and storage of energy in an efficient manner is one of the major callings for the huge demand supply the world is facing in recent times. For the same, students had made models and posters. The posters included an introductory one, another based on energy harvesting and yet another on energy storage. One poster was made on the ongoing nano based research done by students and teachers of the college. Explanations were given to the the visiting students as well as the interested teachers as to how big the role of nanotechnology has become and how its importance is getting bigger and bigger. To keep their interests piqued, a quiz based game was also designed. The participation and enthusiasm revealed that this field has gained much interest in recent times, given its high output rate based on novel and innovative techniques

Tanushree Chowdhury
3rd Year



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* Booklet (If Any)

* Poster of the Event

* Poster of Special event if any

* Program Schedule

* Feedback Form

* Feedback Highlights

* Photo

Gallery



* Certificate

Attendance of Participants

ACTIVITY: Vistaar (DIY Astroscience Stall, Nano-materials Stall)

Time: 9:30 AM – 5:30PM

Date: 01 Nov 2019

Venue: Sri Venkatesawara College

Criterion No: II/ III/ V/ VII

S. No.	Tier	Name	Affiliation
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S. No.	Name of Faculty	Designation
1	Dr. B. V. G. Rao	Associate Professor
2	Dr. Renu Jain	Associate Professor
3	Dr. Pratima Vyas	Associate Professor
4	Dr. A. K. Chaudhary	Associate Professor
5	Dr. K. C. Singh	Associate Professor
6	Dr. Narender Kumar	Assistant Professor
7	Dr. Anant Pandey	Assistant Professor
8	Dr. Manoj Giri	Assistant Professor
9	Dr. Garima Saxena	Assistant Professor
10	Dr. Piyush Parasar	Assistant Professor
11	Ms. Geetika Jain	Guest Faculty
12	Mr. Chirag Malik	Guest Faculty

List of Guests / Volunteers coming to Sri Venkateswara College for(name of event)..... event organised by Department of Physics, SVC.

S. No.	Name	Affiliation	Talk and Memento

