



DWARAKA DOSS GOVERDAN DOSS VAISHNAV COLLEGE

DEPARTMENT OF PHYSICS – SHIFT II

PHYSICS NEWS LETTER – 2020

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LIFE OF SAHA:

- Meghnad Saha is one of the greatest Indian Physicist and he was fondly called as “FATHER OF ASTROPHYSICS.”
- Meghnad Saha born in Sheoratali near Dacca on 6th October 1893.

DEPARTMENT ACTIVITIES:

Amidst the Corona pandemic, with the moral support of Secretary and Principal, several events have been conducted in order to motivate the students and further their love for Physics. Activities like Webinars and Culturals were conducted. Student activities via the StarStruck Physics club of the Department was organised.

Webinars Conducted:

UT DALLAS Erik Jonsson School of Engineering & Computer Science

Silicon and Beyond: Need for New Low-Dimensional Materials in the Field of Nanoscience

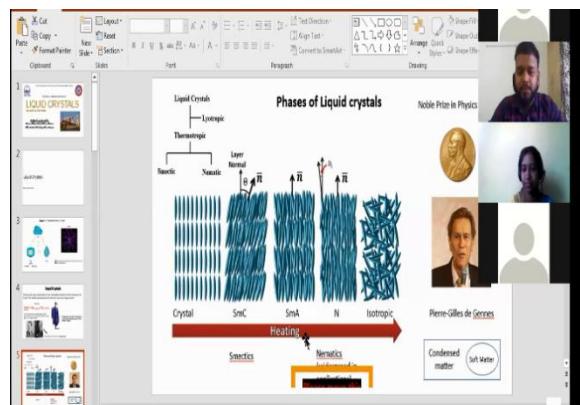


Sanjay Gopalan

A one day International Webinar on “SILICON AND BEYOND: Need for New Low Dimensional Materials in the Field of NanoScience” was organized by the Department of Physics (Shift

- Meghnad Saha faced many insults and harassments in the name of caste, but he remained loyal to the country and ensured that he works for the growth of science in India and lift the people of this country
- Due to caste discrimination, Meghnad Saha was stopped from eating in college canteen. So he started his own mess and due to quality of food and the intellectual debates in the mess, NETHAJI SUBASH CHANDRA BOSE used to visit the mess every now and then.
- Meghnad Saha and S.N.Bose were classmates. S.N.Bose stood first in the class, Saha comes second. S.N.Bose himself admitted that it was due to fact that S.N.Bose took Sanskrit as his language of interest while Saha choose German.
- Einstein once said temperature of some star was so much kelvin.

II), D.G. Vaishnav College, Arumbakkam, Chennai 106, on 3rd September 2020. The Resource Person of the webinar was Mr. Sanjay Gopalan, B. Tech, M.S., Ph.D., Graduate Research Assistant, Department of Material Science and Engineering, University of Texas, Dallas, USA. Totally, 146 participants attended the webinar including faculties, research scholars, PG students of various colleges. The feedback obtained from the participants commented that the program was highly informative.



The Department of Physics (Shift II) organized National Webinar on Liquid Crystals – Technology and Current Trends, on 3rd September 2020. The Resource Person of the event was Dr. S. Vigneshwaran, M.Sc., M.Phil., Ph.D., Assistant Professor, Division of Physics, School of Advanced Science, VIT, Chennai. The inaugural address was delivered by Dean Dr. R. Srikanth. The objective of the seminar was to provide an insight into liquid crystals and applications which definitely was realized. In all, 150 participants from various institutions from all over India took part in the webinar.

The Department of Physics (Shift II) organized Webinar on Twentieth Century Physics, on 7th October 2020. The Resource Person of the event was Prof. Dr. T. R. Govindarajan, Emeritus Professor, The Institute of Mathematical Sciences, Chennai. His area of interests includes high energy physics, mathematical physics, cosmology, etc. He has been instrumental in establishing the Tamil Nadu Science forum which is doing a great service to our community. Till date he is actively conducting popular Science lectures to reach science to all. The talk explained the conceptual changes brought by modern Physics and highlighted how important, radical and fascinating they are. He covered the topics in relativity,

When people asked him how can he say that, Einstein answered “I sahad it”. This was the impact Saha’s work had on the Astrophysics.

- Saha’s ionization equation related ionization of gas to other parameters such as Ionization energy, Temperature, Number density of ions.
- He was elected member of Loksabha. His speeches on various issues like refugee and rehabilitation, multipurpose river projects, Atomic energy policies, long term planning were highly appreciated. He was chief architect of Damodar river valley project.
- Saha passed away on 16th February 1956 at the age of 62.

quantum mechanics, elementary particles and cosmology. The talk was lively and interesting explaining what Einstein, Bohr, Schrödinger and Heisenberg were really talking about. The talk helped the students develop an understanding of what recent advances in Physics actually mean.

Staff Achievements/Activities:

Online classes of all the Departments started well ahead of other Colleges. Adopting to new form of teaching in short period of time without compromise on quality is itself an achievement. Our staff member Dr. M. Amudha from Department of Physics – Shift II has successfully defended her Ph.D. viva voce on August 19, 2020. Her area of research is Crystal Growth, Nonlinear Optics. She has published 8 research papers in International journals.



STUDENT ACTIVITIES:

In order to give a break from intense online classes our Department also conducted Cultural events for students.

LET'S KNOW:

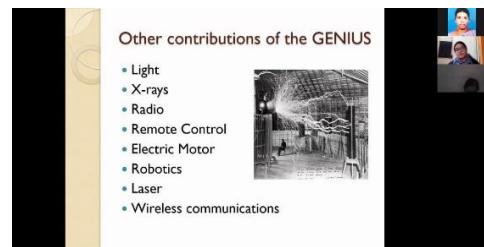
Who was the first person to declare that earth was round?

Aristarchus of Samos was an ancient Greek mathematician and astronomer from Ionia who came up with a revolutionary astronomical hypothesis. He claimed that sun, not the earth was fixed at the center of the universe and that the earth along with the rest of planets revolved around the sun. Aristarchus measured the angles between the sun and the surface of the earth in two different cities and found that the angles differed dramatically. From this measurement and other calculations Aristarchus became the first person to prove that the earth was round.

When Apollo astronaut David Scott dropped a feather and a hammer on the moon, which will hit the ground first?

At the end of the last Apollo 15 moon walk, Commander David Scott conducted one of the most famous

Competitions were conducted with a motive to enhance curricular and extra-curricular activities of our students. Some of the events include Oratorical, Singing, Paper presentation and Quiz. Prizes were given to the winners.



Instead of faculties pestering the students to do some academic activities, our students of StarStruck Physics club took the initiative to conduct the program "**Feynman Lectures**". The students of IIInd B.Sc. explained in their own words the information that they had derived from reading the first three chapters of Feynman Lectures Vol 1. The Power point presentation was detailed and made the students realize that the Feynman Lectures are timeless. Their presentation was engaging, explaining the facts of natural world. To sum it all the students who attended the seminar will start looking at natural phenomena in a wonderful new way.



Our students got inspired by Mr. Ayesha Natrajan – Ariviyal Palagai and did some further reading and gave a seminar on "**127 Years of Sahism**"

demonstrations of free fall. He held out a geologic hammer and a feather and dropped them at the same time. Because they were essentially in a vacuum, there was no air resistance and the feather fell at the same rate as the hammer, as Galileo had concluded hundreds of years before – all objects released together fall at the same rate regardless of mass.

The sun exerts a larger gravitational pull on the earth than the moon does. Why is the sun not responsible for tides?

The ocean tides on earth are caused by both the moon's gravity and sun's gravity. In general, ocean tides are not generated by the overall strength of gravity, but instead by the differences in gravity from one spot to the next. Even though the sun is much more massive and therefore has stronger overall gravity than the moon, the difference in pull from the sun is not very different on the near and far sides of the earth, therefore the sun's effect on tides is minimal.

on 6th October 2020 commemorating his 127th Birthday. The life history and scientific career of Meghnad Saha was explained in detail which unquestionably served as an inspiration to the students who participated in the program.



STUDENTS PROGRESSION:

Our undergraduate students have joined for Masters in various University/Colleges. Some have got placement in reputed IT companies through Campus interview and also some of them are preparing for various Competitive exams.

ALUMNI REPORT:

The Department of Physics organised Alumni meet on 31.10.2020. The meet was attended by 50 alumni who came online. The event started at 6 in the evening with a welcome address. The Head gave an account of the Department Activities. Then it was followed by a small interaction between the alumni of various years of passed out. The alumni refreshed their old memories about the department and classmates. The alumni felt that it is always to be in touch with the almamatar where they laid

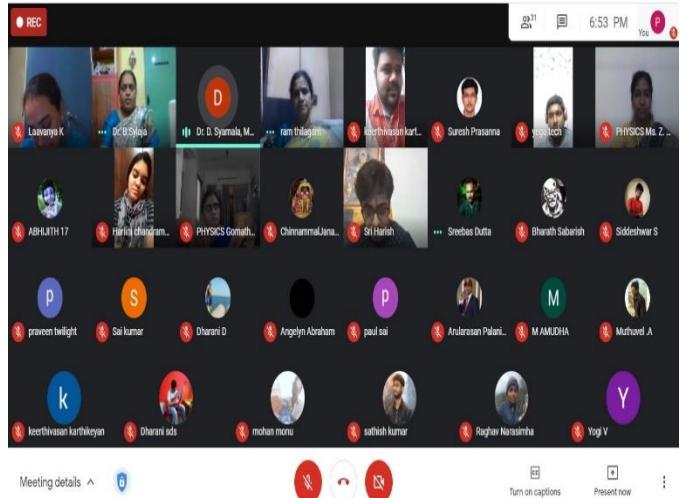
Who were the women to win Nobel prizes in Physics?

The Noble Prize in physics for the year 2018 was given to DONNA STRICKLAND for formulizing the method of Generating high intensity ultra-short optical pulses.

The Noble Prize in physics for the year 1963 was given to Maria Goeppert Mayer for her discoveries concerning Nuclear shell structure.

The Noble prize in physics for the year 1903 was given to Marie Curie for recognition of the extraordinary services and ground breaking research on the field of spontaneous radiation discovered by Antonia Henri Becquerel.

foundations of their dreams. The alumni feedback were taken at the end of the meet.



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