# ACTIVITY REPORT DEPARTMENT OF PHYSICS 2020-21

## Energy Literacy Programme in collaboration with Energy Swaraj Foundation 1-30 July 2020

Department of Physics and Science forum of St. Mary's College join as the partner organsation of The Energy Swaraj Foundation for energy literacy drive. This is for igniting the students about Energy Literacy Movement through awareness and to undertake the required action for climate change mitigation. The Movement sets to bring a philosophical understanding and practical acceptance in the college for the adoption of the solar solutions in a disciplined manner for fulfilling 100% energy needs. Both faculty and students undergo a short course on "Learn to Design your own Solar Home System" delivered by Prof. Chetan Singh Solanki, Department of Energy Science and Engineering, IIT Bombay. In this course, there were 15 videos of 15 steps to design a solar home system. There was an an online energy quiz at the end of the course. 1517 students registered for the programme and 995 students get certified as energy literate. The course is very helpful in understanding the basics of energy, power, electricity bill and solar systems.



Count of your Students

1517

995

Students Registered

Students Certified

College received an appreciation letter for the support towards the Energy Literacy Drive as a Partner Organization by ensuring the participation of maximum students in the programme.



#### **Pollution Control Day 2020**

#### 2 December 2020

The environmental pollution, directly and indirectly, affects the quality of life more than one can imagine. All this is mainly caused by human activities which harm the environment in ways more than one. Nowadays pollution prevention is a major global concern because everyone on the earth is entitled to clean air to breathe, water to drink, and to enjoy public lands. December 2 is observed as National Pollution Control Day every year. The day is observed in the memory of those who have lost their lives in the Bhopal Gas tragedy on the night of 2-3 December 1984. According to the National Health Portal of India, every year around 7 million people globally die due to air pollution, 4 million of whom die from indoor air pollution. The pollution level is so high that nine of ten people globally do not have access to safe air. Notably, the pollutants present in the air are so tiny that it can pass through mucus membrane and other protective barriers to damage the lungs, heart, and brain.

To mark this day, Science Forum in collaboration with Department of Physics organized photography competition to inspire the students to fight against pollution. The topics for this competition include sources of environmental pollution, pollution control measures and sustainable life style practices. They can take original photographs from their neighbourhood and can send photos of their own products made from waste materials. They are requested to write one paragraph explaining the context of the photographs. Students actively participated in the programme.





### Sky watch: Jupiter and Saturn Conjunction 21 December 2020

On December 2021, Jupiter and Saturn—the two biggest planets in our solar system—meet, and it is termed as the "Great Conjunction". This is the rarest meeting between the bright planets. It happens just once every 20 years, and 2020 brings the closest Jupiter-Saturn conjunction since 1623, during Galileo's times.

Science Forum and Department of Physics organized a skywatch programme on 21 December 2021. All are requested to watch the sky near sunset around 6pm along the southwester horizon. Students are given proper instructions to view the conjunction. They took the photographs of conjuction. It was an amazing experience to see Jupiter and Saturn very close together with normal vision. Some uses binoculars and observed Jupiter's four huge satellites spread in a straight line.



