Educational outreach Program to BIT Jaipur

Under

DBT Star College Scheme

Date : 25-26 August 2022

No of Participants: 11 Students and 03 faculty members

Department of Physics, Shyam Lal College organized an educational outreach program to Birla Institute of Technology, Masera Campus, Jaipur on 25-26 August 2022. The trip was organized under the mentorship of Dr. Sunny Aggarwal and Dr. Pradeep kumar Sharma.



In the outreach program 11 students and 3 faculty members visited the BIT campus Jaipur and attended a detailed informative lecture about the basic understanding and potential applications of Plasma followed by an exhibition. In the exhibition the students were given demonstration of various set up generating plasma and the glimpses of emerging applications. The main theme of the educational outreach program was to expose the UG students to towards the fundamental sciences. This trip not only helped them in learning new facts but also boosted their enthusiasm towards science.

Plasma is superheated matter – so hot that the electrons are ripped away from the atoms forming an ionized gas. It comprises over 99% of the visible universe. In the night sky, plasma glows in the form of stars, nebulas, and even the auroras that sometimes ripple above the north and south poles. That branch of lightning that cracks the sky is plasma, so are the neon signs along our city streets. And so is our sun, the star that makes life on earth possible.

Plasma is often called "the fourth state of matter," along with solid, liquid and gas. Just as a liquid will boil, changing into a gas when energy is added, heating a gas will form a plasma – a soup of positively charged particles (ions) and negatively charged particles (electrons).

Because so much of the universe is made of plasma, its behavior and properties are of intense interest to scientists in many disciplines. Importantly, at the temperatures required for the goal of practical fusion energy, all matter is in the form of plasma. Researchers have used the properties of plasma as a charged gas to confine it with magnetic fields and to heat it to temperatures hotter than the core of the sun. Other researchers pursue plasmas for making computer chips, rocket propulsion, cleaning the environment, destroying biological hazards, healing wounds and other exciting applications.





