

Event Report

One day visit to the Udaipur Solar Observatory, Udaipur

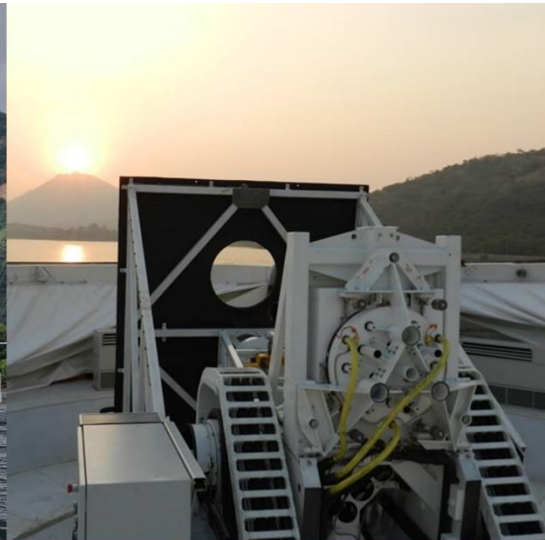
A unit of Physical Research Laboratory, Ahmedabad (Department of Space)

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31-01-2020 One-day academic visit to the Udaipur solar observatory (USO), Udaipur, was organized for the students of Sem VI and VIII in B.Sc. (Hons.) to impart a holistic real time exposure to the insides of one of the prominent research observatories of the country. The trip was accompanied by our faculties Dr. Rohit Srivastava, Dr. Satyam Shinde, Dr. Sheetal Rawat, Dr. Prahlad Baruah and Mr. Dhaval Santola. Udaipur Solar Observatory (USO) is situated in Udaipur, Rajasthan. It comes under Physical Research Laboratory, Dept. of Science, India. Research activities of the observatory encompass the study of solar activity and solar origin of space weather. The sky conditions at Udaipur are quite favourable for solar observations.

The trip was facilitated by Dr. Nandita Srivastava, Head USO and Dr. Raja Bayanna along with their students at USO. In the beginning an elaborate information on the workings of the observatory, the telescopes and their instrumentation, and the principles of physics governing all aspects was given. The commencement briefing presentation was followed by an interactive discussion on the sun, its prominence, how they observe it and the phenomena occurring inside it. Appalling images of all the captured data left the students in awe. A tour was given to their major telescope holding cells and stations, namely e-callisto (Compound Astronomical Low cost Low frequency Instrument for Spectroscopy and Transportable Observatory) and Global Oscillations Network Group (GONG) telescope that perceived images, radio signals, high resolution solar chromospheric, magnetic field intensities, velocities and other spectral observations to plot and analyse data about the sun. GONG telescope at USO is one among the only six stations around the world for continuous monitoring of solar activities. Though the students couldn't visit the 50 cm aperture Multi-Application Solar Telescope (MAST) installed on an island in the Fateh Sagar Lake, amidst a large mass of water decreasing the air turbulence due to ground heating by sun's rays. New concepts and studies about solar flares, mass ejections, and the evolution of solar active regions were shown along with technical explanations of the instruments and softwares used. Visit concluded with the high tea and group photographs with USO scientists and scholars.

Students learnt about the recent trends and career opportunities in the field of solar science. The coordinators were extremely helpful in giving insights to the students and making the concepts easy to comprehend. Altogether, the trip was a beautiful learning experience with the faculties and students sharing the journey.



e-CALISTO at USO/PRL

