

FIELD WORK - DESCRIPTION

Fieldwork is designed to provide the student with an opportunity for a practical, “real world” experience for the purpose of developing leadership quality, indoctrination and managerial skills sufficient for entry into a proficient career.

The field work visit was organized with the prior permission (Indian Institute of Astrophysics, Email: Dated 9, February 2020) under the guidance of Secretary of the College **Dr. S. Sankaranarayanan** and Principal **Dr. V. Ravichandran**.

Students of M.Sc. Physics have taken hard efforts and initiative under the continuous guidance of **Dr. N. Vijayakumar**, Head, Department of Physics and **Dr. L. Ravisankar**, field visit in-charge, which made this visit a grandsuccess. Total 16 students along with **Dr. S. Jeyakumari**, Assistant Professor of Physics **Dr. N. Balasundari**, Assistant Professor of Physics and **Mr. G. Sivakumar** Office Assistant have joined this visit.

We Departed to Kodaikanal on 28th, February (Friday) by Tourister van. And we arrived at Kodaikanal observatory on 29th, Saturday at 09.15 am. The Kodaikanal Observatory is situated on the tip of Southern India's lovely Palani range hills. Today Indian Institute of Astrophysics operates Kodaikanal Solar Observatory that was earlier Madras observatory. At present, it features all the modern imaging apparatus and is the must-visit location to observe the celestial events. The Observatory also boasts a famous Astronomy museum. The displays here are chiefly pictorial, backed by a couple of models. Visitors can also see the live solar image and the Fraunhofer spectrum.

Students gained the knowledge about a 15 cm aperture English-mounted Heliostatic refractor to serve as a photoheliograph to obtain daily 20 cm white light pictures of the sun, sky permitting. The 20 cm refractor is used occasionally for cometary and occultation observations and sometimes made available to visitors for night sky viewing. They also known about the Twin spectroheliographs giving 6 cm diameter full disc photographs of the sun in K-alpha and H-alpha spectral lines are in regular use. The experts imparted knowledge about the Soar tunnel telescope.

Conclusively students have gained knowledge about

- Observations and interpretation of the morphological changes in active regions and their role in occurrence of transients.

- Measurement of vector magnetic fields.
- Photographs of ~ 100 years are being digitized for long term studies.
- Studies on the structure and dynamics of equatorial ionosphere and its response to the solar and interplanetary variability.
- Hourly observation of surface temperature, pressure and rainfall are made here and transmitted to the India Meteorological Department and the World Meteorological Organization .

The field visit provides an insight on how planets move in space and also useful information related to the day-to-day life which cannot be visualized in lectures. The trip to the epitome of learning ground will present all the visitors with a core knowledge and display of all the astronomical elements researched here by far. Also, the biggest highlight is trying your own hands with the equipment present here to upgrade your aptitudes and enjoy discovering the magical galaxy.