

A visit to Kodaikanal Solar Observatory

To recognize the functional importance of Sun and the Solar System, a group of interested students of Physical Sciences were taken to the **Solar Observatory of Kodaikanal owned and operated by the Indian Institute of Astrophysics (IIA)** on 13 February 2015 by the Department of Physics & Mathematics, School of Graduate Studies, J C Road.

Prof. Sudhakara Reddy was the coordinator of the educational trip. We are highly obliged to thank **Dr. K B Ramesh of IIA**, a leading scientist in India who is a pioneer in solar astronomy for organizing the visit and also for an informative lecture.

The Kodaikanal Observatory of the Indian Institute of Astrophysics (IIA) situated at an altitude of 2343 meters is located in the beautiful Palani range of hills in Southern India. It was established in 1899 as a Solar Physics Observatory and all the activities of the Madras Observatory were shifted to Kodaikanal.

Students were fascinated to see the Solar Tunnel Telescope - A Grubb Parson 60 cm diameter two-mirror fused quartz coelostat mounted on 11 m tower platform directs sunlight via a flat mirror into a 60 m long underground horizontal 'tunnel'. A 38 cm aperture f/90 achromat forms a 34 cm diameter solar image at the focal plane.

The H-Alpha filter is used in this detector to study the Photospheric studies of the Sun. The major attraction of this telescope was the students were allowed to see the Live Solar Images of the Sun and also make out the Doppler shift using the same.

The enthralled students also visited the Full disc image Chromosphere Telescope on a siderostat mount. Light from the 46 cm siderostat is diverted to a 15 cm Zeiss achromat objective which provides an f/15 beam and a 2 cm image. A prefilter and a daystar Ca K narrow band filter are used together with a Photometrix 1k x 1k CCD to record the K filtergram.

Finally, the students visited the **WARM (White Light Active Region Monitor)** telescope which is the **brainchild of Dr. Ramesh himself**, is a mini version of the tunnel telescope with the facility to change the filter as well. A 20 cm refractor at the observatory is used occasionally for cometary and occultation observations. The WARM telescope is also occasionally made available to visitors for night sky viewing.

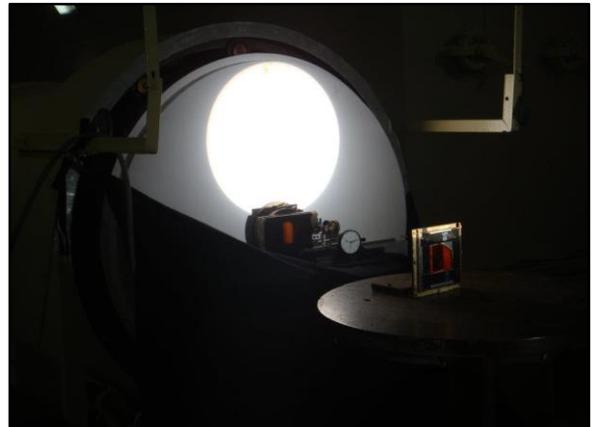
Dr.K B Ramesh was benevolent to accompany the students and help them to understand the advanced knowledge with a detailed lecture on the basics in physics. This visit was mainly targeted to initiate interest in students for pursuing Physics.



Kodaikanal Observatory completed 100 years in 1999



Solar Tunnel Telescope Dome



The image of the Sun falling on the detector



WARM Telescope



Team in front of The Chromosphere Telescope