

Advancement of modern astronomy

KAVALUR

A casual non-curious visitor to the Kavalur observatory where Mr. Rajiv Gandhi commissioned an indigenously-built 2.34 metre country's largest optical telescope, is likely to miss a legend that is tinged with sentimentality.

Kavalur observatory located in the picturesque sandalwood plantations of Javadi hills in North Arcot district, has seven telescopes—two measuring six inches and the largest a 90 inch one. A six-inch telescope at the very entrance of the observatory now exclusively meant for the use of students and amateurs of astronomy, has a curious history regarding its previous user the late M. K. Vainu Bappu, Founder-Director of the Indian Institute of Astrophysics, who relentlessly worked for the advancement of modern astronomy in India.

The telescope was a gift to one Radha Gobind Chandra of Calcutta, a keen sky-watcher, by the American Association of Variable Star Observers. Radha Gobind Chandra as a clerk in the Collector's office had developed a passion for the study of stars and planets and faithfully reported his findings to the Association. The Association found the findings so useful that they gifted him with the telescope to watch the eastern sky. It was later passed on to Vainu Bappu in appreciation of his great enthusiasm for astronomy after Radha Gobind Chandra found he was too old to make full use of the instrument.

Mr. Bhattacharya, the Director of the Indian Institute of Astro-physics who had collaborated with Vainu Bappu in a couple of notable astronomical findings, got the telescope installed at Kavalur observatory, in deference to the wishes of Mr. Bappu that the telescope he inherited be kept for the use of young students and amateurs of astronomy. Mr. Bhattacharya also said they could make use of the instrument free of cost with prior permission and that boarding and lodging facilities would be made available to the students at nominal rates, at the observatory.

The Indian Institute of Astrophysics, a wing of the Union Government's Department of Science and Technology, is entrusted with research and development of astronomical sciences in the country. It has four centres at Bangalore, Kavalur, Kodaikanal and Gauribidanur. The Bangalore centre houses offices, electronics and mechanical laboratories. Solar research facilities are available at the Kodaikanal Observatory and Stellar Research facilities are being developed at Kavalur. The Institute in collaboration with Raman's Research Institute is engaged in the study of radio emissions from the Cosmos through a radio telescope.

The earliest record of the institute dates back to the 1786 listing manuscript, marking the longi-



The Kavalur observatory

tude and latitude of Masulipatnam fort which Mr. Bhattacharya proudly displayed. The manuscript also has drawings and several of its notings are in Latin, Tamil, Urdu and Telugu.

The Kavalur observatory which has taken a series of pictures of the Comet Halley, will be studying its composition and behavioural characteristics. The institute successfully built a 2.34 metre telescope, to enable Indian astronomers to get first rate pictures of stars and galaxies.

Mr. Bhattacharya told a group of journalists from Bangalore recently, that the observational time of the new, giant telescope, would be kept open to astronomers even from outside the country. He said, the institute would readily co-partner any worthwhile astronomical endeavour from any source. It would use the largest telescope for studies that include tracing of the spiral arm, outer layers of stars, and external galaxies. According to him it has an in-built facility

for the three systems namely taking photos, cassegrain facility and to be used as a coudé telescope. The institute has also successfully built a 16-inch prototype optical telescope for the use of Indian universities at the instance of the University Grants Commission and ISRO to be installed in the campus of the Indian Institute of Science, Bangalore.

Mr. Bhattacharya said, the institute was currently devising joint programmes with its 40 inch telescope with ISRO, to study X-ray objects and light variations of stars. Several major discoveries have been accredited to the Institute especially when in 1972 for the first time an atmosphere was discovered around Jupiter's satellite Ganiymede, or when the rings around Uranus were noticed in 1976 or in 1974 when a thin ring round Saturn was spotted.— Bangalore Staff Reporter.