

Namma Telescope : Advancing Hands-On Astronomy Education in Tamilnadu, India

Fostering equitable access to telescopes in schools through community-driven efforts



A statewide online survey conducted to assess the availability of telescopes in schools revealed that only one in ten schools possess telescopes. Telescopes are not yet considered as an essential lab equipment and observational astronomy is part of the syllabus. Over 80% of schools who responded are willing to arrange astronomy sessions provided they have access to resources. Catering to this need, the Namma Telescope project was conceived and launched in Feb 2023.



Under the project's ambit, we have already deployed telescopes in 6 out of 25 target schools for the 2023-24 academic year. We have also designed a curriculum tailored to grades 6-8 in line with state syllabi with a focus on the basics of astronomy followed by activities involving observations of the moon, sunspots and other citizen science projects, including asteroid research campaigns.

The project, now in its pilot phase, aims to provide functional telescopes to every school in Tamilnadu, making it a pioneering project in India. Some of its primary goals include promoting observational learning, stimulating student interest in space science, and nurturing critical thinking and scientific literacy skills through a localised curriculum.

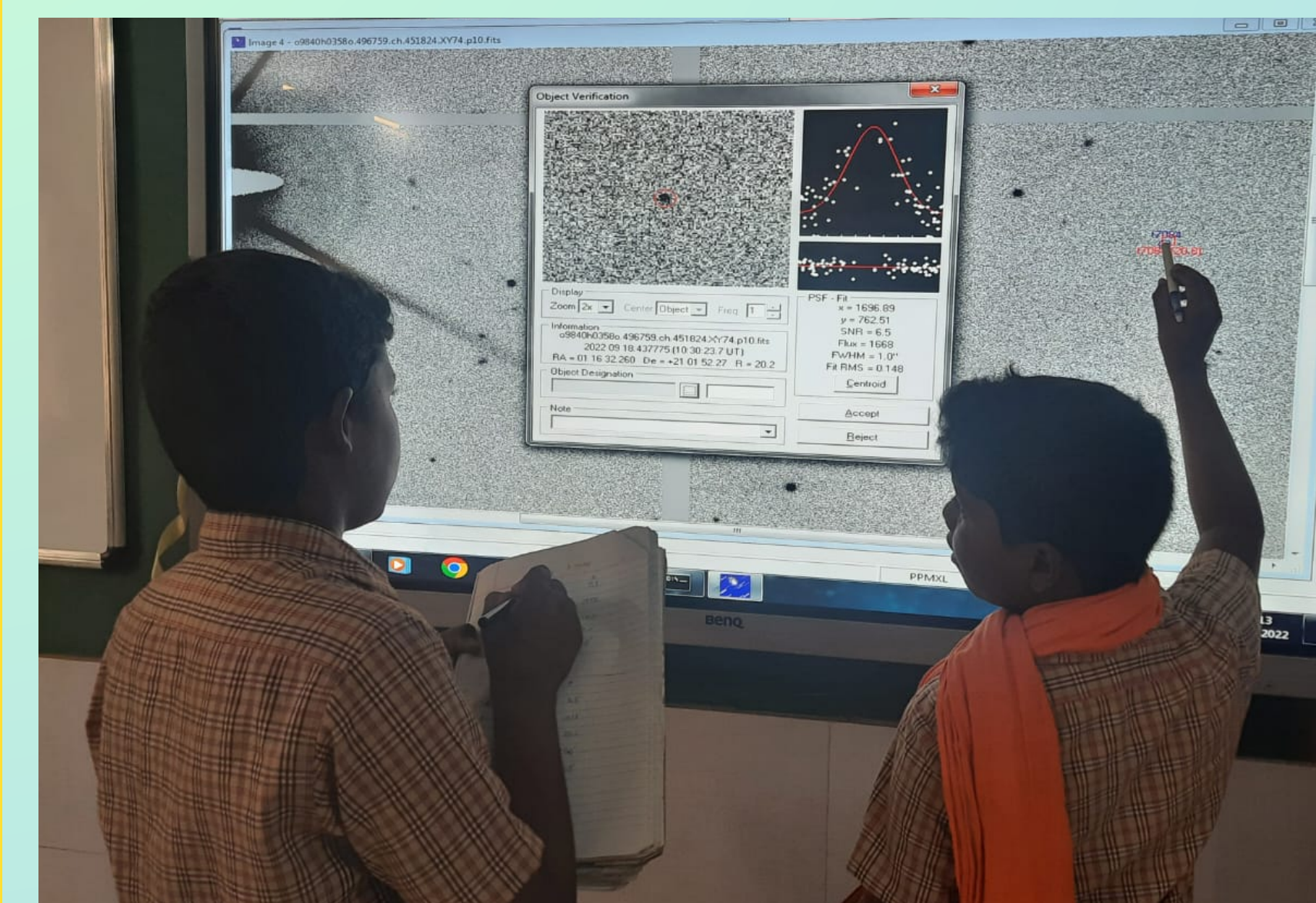


Access to telescopes and hands-on astronomy education can boost SDG4 (Quality Education) by improving science education quality in schools. Our project aims to promote astronomy in regional curricula and involve community members in student activities, with a far-reaching impact on community development. Telescopes provide a foundation for students to develop a deep understanding of key astronomy and physics concepts, sparking their curiosity and inspiring future careers in the STEAM fields.



Learning Outcome and Impact:

- Proficiency in basic telescope operation and sky observation techniques
- acquisition of Stellarium proficiency
- hands-on experience in real-time astronomy observation and data collection,
- familiarity with astrometrica software and astrometric data analysis.
- Direct impact ~750 students in academic year 23-24



Telescope Specifications:

5 inch Reflector, Focal Length 900 mm/700 mm, Kellner Eyepice (4mm,10mm,25mm), Magnification 18x - 254x, Alt-Azimuth Mount, Finder Scope - 5x24



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