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Upgradation of integral auto guider unit subsystem of the 3.6 m DOT

We present here the current status of the 3.6 m Devasthal Optical Telescope auto guider unit subsystem and discuss the upgradations being performed. This includes complete redesigning of the integrated three-axis auto guider unit which consists of a guiding CCD camera and a CCD based wavefront sensor. The unit is supported on a three-axis system for scanning the two dimensional field and focusing on the guide star. Due to the obsolescence and failure of the CCD cameras and maintenance efforts required for such cameras with mechanical shutters, these are being replaced with next generation shutterless scientific CMOS cameras. To accommodate the new interface, suitable mechanical, electrical, optics and software modifications were carried out inhouse. The performance of sCMOS detector was initially characterized in laboratory and later onsky using the 1.3 m telescope. Currently, the upgradation has been completed and the performance of the subsystem is being tested. In this presentation the upgradation efforts and performance of the sCMOS camera will be discussed.

Presentation type

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