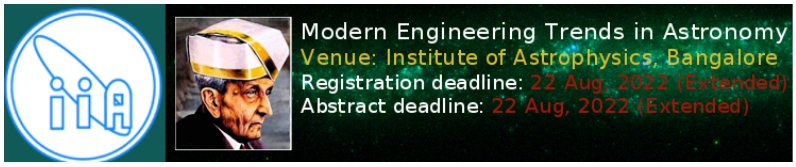

Contribution ID: **14** Type: **not specified**

Development of a spectrograph in the FUV region

The FUV (900-1800 Å) is the richest part of the spectrum in terms of emission lines –O VI (1032/1038 Å) and C IV (1548/1550 Å) from hot gas, C III (977 Å) and N III (1750 Å) from warm gas, and the Lyman and Werner bands of molecular hydrogen from cold gas. We are building a spectrograph (TINI) to map the extended objects observed by UVIT in the emission lines of atoms and molecules. The images trace the morphology of the objects; the spectra will explore the physics of the objects and how conditions vary over the nebula. The observed lines and line ratios are sensitive indicators of the temperatures and densities across the extended nebulae with the greatest density of lines occurring in the far-ultraviolet (FUV: 900 –1800 Å). Our detector is an innovative 40 x 40 mm GaN detector with a peak efficiency of 70%, currently being developed by the Institute of Astronomy and Astrophysics (IAAT) at University of Tübingen. UVIT has proven to be a critical mission in seeding the UV community in India. We believe that TINI will build on this interest and will be important for future missions such as INSIST and other astronomy

Presentation type

Poster

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