RES-NRSC-2022-008

Name of ISRO Centre/Unit

National Remote Sensing Centre, Hyderabad

Title of the research proposal

Development of techniques for correction of artefacts in Remote Sensing Images

Name of Co PI from ISRO Centre/Unit

Shri. E. Venkateswarlu

Contact Address of Co PI and e-mail id

MHRO-DPD / ODPG,
Data Processing Area, National Remote Sensing Centre,
Hyderabad e-mail: venkateswarlu_e@nrsc.gov.in

Area of Research

Satellite data processing

Summary of the proposed research and expected deliverables

Remote sensing satellite images are interpreted at pixel level using various analysis methods. One key requirement for almost all the applications is the accuracy of the images. Any kind of noise and perturbation in pixel value or geometric position will cause misinterpretation of the data.

Each generation of IRS sensors shows improved data acquisition and image quality over previous generation. However, some anomalies are inherent to certain sensors and corrected in the data processing chain by applying mathematical formulas derived from distortions. These types of anomalies need special correction methods taking into consideration of scene level information.

Scope of the Work:

The scope of the work is to identify and correct the artifacts / anomalies produced during imaging and processing stages in automatic mode in production chain. This utility with GUI can also be provided to users as part of open data policy.

Deliverables:

Tool / utility with GUI and code.

User document.