

RESEARCH PROPOSAL



GWF MODULE

GUIDED BY

Mr. Koti Shiva Reddy-SE

GID- IIRS,ISRO.

PROPOSED BY

Arnav Dutta, Sai Shruti Vadrev, Poorva Singh, Yuvraj Jain

M.Tech PRSD

AUTOMATED SAR INTERFEROMETRY

- A python based approach

INTRODUCTION

Remote sensing techniques play a vital role in monitoring and analyzing Earth's surface changes. Synthetic Aperture Radar (SAR) interferometry has emerged as a powerful tool for measuring and mapping subtle ground deformations with high precision. With the advancements in computing and programming, automated SAR interferometry using Python has gained significant attention in recent years.

Bulk downloading with Python streamlines and automates the process of downloading multiple files, offering efficiency, scalability, reproducibility, and customization options. It empowers you to handle large-scale data acquisition or resource-gathering tasks effectively, freeing up time for analysis and other critical aspects of processing.

METHODOLOGY



EXPECTED OUTCOMES

We expect to automate the whole process, from start to end with very minimum inputs from the user.

We aim to generate good-quality interferograms first and will extend our objective to automate deformation analysis or time series further.