

Initial Plan of Action (IPA)

The IPA can be divided into two broad parallel paths:

1. Literature review & study
2. Experimental setup & data preparation

Literature Review & Study:

- Problem statement study and exploration
- Various past attempts on the problem.
- Review and comparison of the methods
- Brainstorming sessions for new ideas !!

Experimental Setup & Data Preparation:

- Deciding the technology and hardware to be used.
- Set up the machine/ workstation for carrying out the experiment.
- Collection of various datasets (both SAR and Optical)
- Pre-process the data to make it development-ready. (cleaning, registering, enhancing)
- Any other possible activity to make the experimental phase easy.

After the Initial Plan of Action, the project can be taken forward to the experimental phase for proof of concept and testing of the new methods. This plan of action for this phase may vary over the course of IPA, but a rough plan structure can be drawn to help us stick to the target. Hence, a proposal for a tentative post-initial plan of action is given below:

Tentative Post IPA activities:

1. Initially can collect Sentinel 1A and 2A data as they are co-registered.
2. Labelling and cleaning data
 - a. Tiling and tagging SAR and optical scenes
 - b. Removing pairs with cloudy optical scene
 - c. Removing any speckle and impulse noise from SAR scene
3. Applying algorithms found in the literature review on the collected datasets
4. Applying any novel algorithm designed by the team.
5. Testing and comparison of all the methods.
6. Check for possible methods ensemble to obtain a more accurate model.
7. Final evaluation of the models and methods.
8. Publishing results and documentation of the entire process.
9. If time permits, extend on IRS data.

Task Assignments for IPA:

	Literature Review	Experimental Set-up
Rohit Gandikota	<ol style="list-style-type: none">1. Problem statement study2. Explore past work3. Review and analyse	<ol style="list-style-type: none">1. Setup-of machine and environment for coding.2. Pre-processing
Uzair Muzeeb	<ol style="list-style-type: none">1. Problem statement study2. Explore past work3. Review and analyse	<ol style="list-style-type: none">1. Collection of data and labelling.2. Pre-processing
Raghvendra Joshi	<ol style="list-style-type: none">1. Problem statement study2. Explore past work3. Review and analyse	<ol style="list-style-type: none">1. Collection of data and labelling.2. Pre-processing

Meeting Minutes from 21-12-2020:

- a. Try the style transfer model on a full resolution image. **Action: Rohit**
- b. Literature review and identification of possible candidates. **Action: All**
- c. Experimental setup on new GPU system. **Action: Rohit**
- d. Data Collection and labelling will be discussed later depending on the status of point a.
Action: All
- e. Next meeting is to be scheduled for the year 2021.